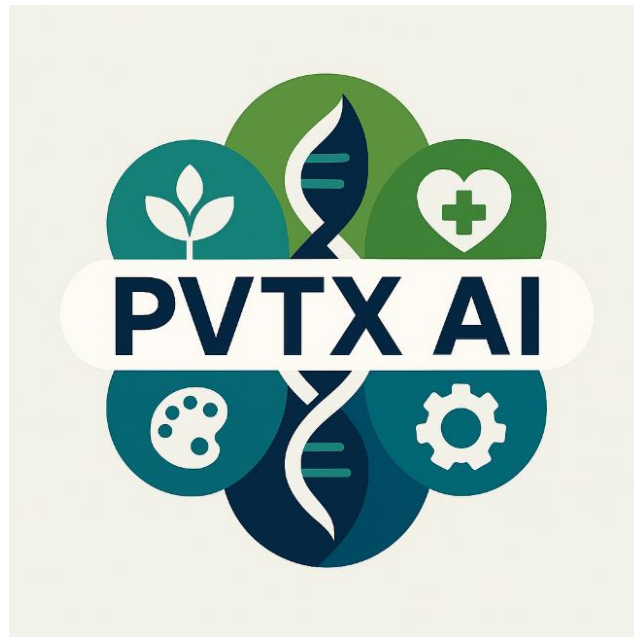




PvtX AI – Prevent X AI

AI Culture & Nature Prescribed Program to Prevent and Treat Chronic Diseases: Saving Money, Time and Lives



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Executive Summary

Healthcare organizations are under increasing pressure to deliver better patient outcomes, optimize operational efficiency, and comply with stringent regulatory requirements — all while managing rising costs and resource constraints. Artificial Intelligence AI presents a significant opportunity to address these challenges. This white paper introduces Prevent X Artificial Intelligence PvtX AI Solution Model for Chronic Diseases prevention and treatment — a secure, scalable, and compliant framework designed to empower healthcare providers, cultural and natural spaces managers, individuals and companies to unlock actionable insights, streamline prescription workflows, and enhance prevention care.



1. Introduction

This whitepaper has been produced to clarify the public about PvtX AI system multiple components, features and functionalities related to the prevention and treatment of Chronic Diseases based on evaluation the factors influencing its occurrence and prevalence within the USA.

It is intended to describe in detail what are the principles behind the business, how prescribed culture & nature can support prevention and treatment and what are the forms to implement, manage and monitor activities coping with that goal. It includes information about the factors, criteria, indicators and measures taken to evaluate current situation of individuals and companies referring to their exposition to CDs, the Health Score.

The AI system also includes features and functions towards elaborating about the levels of adequacy, suitability and feasibility of cultural and natural spaces programming, dramaturgy and activities driven to avoid CDs emergence among the population.

Detailed information is given about the main components of the AI solution and its features and functionality, covering aspects as the AI powered engine, health professionals, cultural spaces and green areas modules and how they operate, the front and backend interfaces and many other particularities.

There are also examples of how it applies to individuals and corporate life, the results obtained from its use together with statistics on how much people, time and lives can be saved by fostering the use of culture & nature to prevent and treat CDs.

The core team developing the PvtX AI solution is also presented, covering all the areas represented within the AI development, including health professionals, cultural spaces managers and natural environment specialists as well as skilled programmers.

1.1 Chronic Diseases

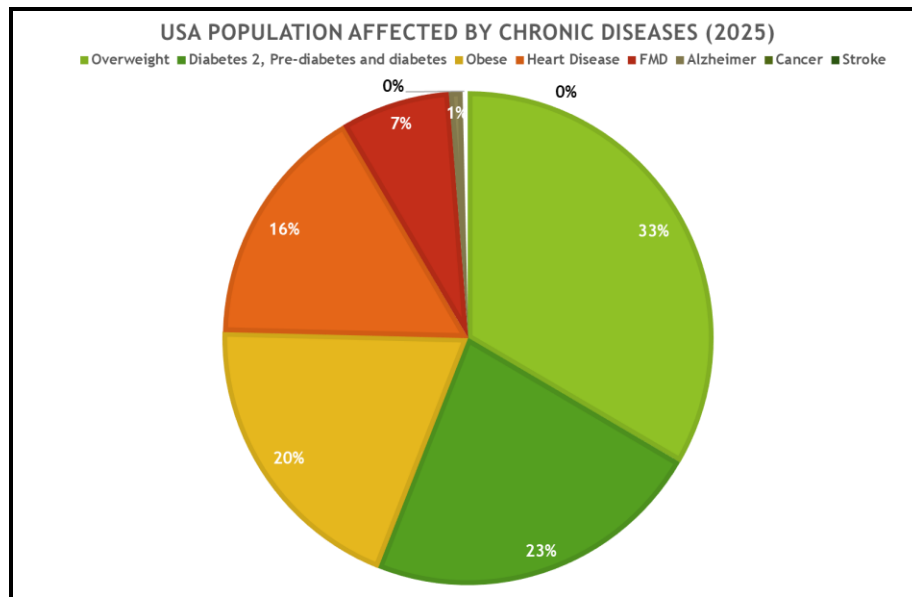
More than 74% of adults in the USA are overweighted, over half the country suffers from at least one chronic disease and have type 2 diabetes or prediabetes, more than 43% are obese - 20% of children, 30% of youngster between 17-24 years old are unable to serve the military (CRA, 2024). Some 30% of adults in America feel lonely once a week, while 10% feel lonely every day (H360, 2025), and 16% of US adults reported frequent mental distress (FMD¹) because of stress, depression, or

¹ defined as 14 or more mentally unhealthy days during the past 30 days where the person has experienced poor mental health



problems with emotions (CDC, 2025). The Graphic has the overall numbers on Chronic Diseases in the USA:

Graphic : USA population affected by Chronic Diseases



Source: CDC, 2025

The risk factors are cigarette smoking, physical inactivity - circa of 25% of adults reported engaging in no leisure-time physical activity, and excessive alcohol use (CDC, 2024), Individuals suffering from chronic diseases are impacted in physical, mental, and social areas of their lives as they attempt to deal with various stressors, learn new ways to cope, and improve their resilience (Gallagher, 2024).

Fortunately, chronic diseases can be prevented, delayed, or alleviated. As much as 80% of heart disease, stroke, and type 2 diabetes cases and 40% of cancer cases could be prevented through modification of lifestyle behaviors (Fragala and Shiffman, 2019). Wellness visits are part of preventive measure when include lifestyle assessment (Jackson et al, 2024) (Medicare, 2025), probably the best timing for positive interference to avoid a patient entering chronic disease statistics, with significant health and economic benefits (CDC, 2024). Healthcare costs could be reduced by improvements in healthy behaviors⁸, by increasing the offer of a comprehensive worksite population health program, access to related health improvement programs, and an environment that supports health (Fragala and Shiffman, 2019).



1.2 Purpose of this White Paper

The main purpose of this whitepaper is to present a comprehensive AI solution model that enables healthcare organizations to responsibly harness AI for prevention, treatment and research excellence — at scale, involving Chronic Diseases occurrence and permanence among the population.

It is going to describe in detail what are the main components, features and functionalities of the PvtX AI system as well as the intended audience and how individuals and companies will be integrated to health professionals, cultural and natural spaces through prescriptions to avoid CDs incidence.

It also has figures on how PvtX AI will generate cash flow and revenue from the selling of service packages to individuals and companies, as well as to geographical locations which can be a neighborhood, a city or any other.

Our core team is presented with their main skills and achievements, representing a group focused on developing healthcare solutions to avoid the inclusion of people within the statistics of CDs holders.

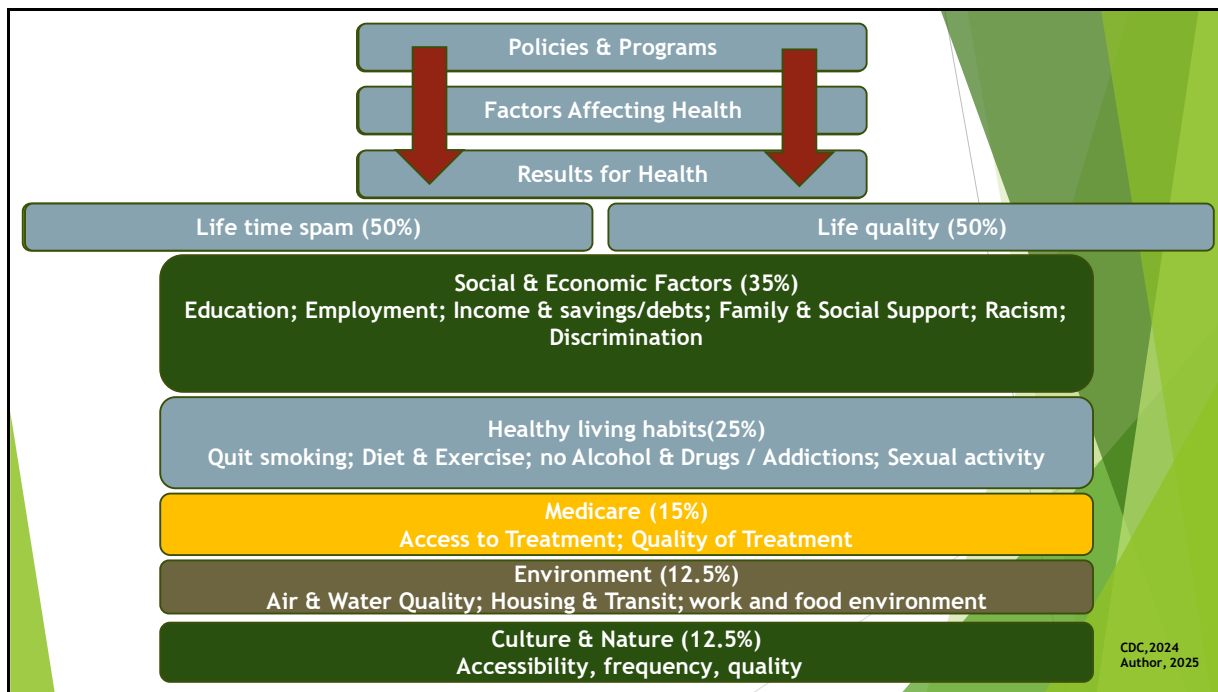
Health professionals can find information about prescription of culture & nature and how this is being applied broadly within the country and the preliminary results. Cultural spaces managers will find information on how their facilities, programming and dramaturge can be assessed in terms of contribution to avoid CDs among the population. Green areas managers and users will be able to identify the main criteria and indicators involved on classifying their own suitability to engage on the efforts against CDs.



2. Culture & Nature Prescribed Program to Prevent & Treat Chronic Diseases

Influencing the occurrence and prevalence of chronic diseases among the population include cigarette smoking, physical inactivity - circa of 25% of adults reported engaging in no leisure-time physical activity, and excessive alcohol use (CDC, 2024), Individuals suffering from chronic diseases are impacted in physical, mental, and social areas of their lives as they attempt to deal with various stressors, learn new ways to cope, and improve their resilience (Gallagher, 2024). The Image has the main factors affecting individuals' life span and life quality:

Image : Life span and quality affected by 4 groups of factors: socioeconomic, habits, Medicare and environment



Source: Author, Adapted from CDC, 2025 and others

The Social & Economic factors amount to 35% weight on a person life span and quality and include education, employment, income, family & social support, racism and discrimination while healthy living habits hold 25% of responsibility and comprise stopping to smoke, go into diet & exercise, no alcohol & drugs consumption and sexual activity. Medicare factors have 15% of influence on a person life span and quality by providing access to quality treatment and the environment and Culture & Nature responds for 12.5% each of a person health with cultural and green spaces, air & water purity, housing & transit quality and the food supply surrounding him / her.

Fostering healthy communities with healthier crops and food, promote healthy habits encouraging physical habits and activities – as participating in arts - that reduce chronic disease and



mitigate perverse incentives are part of the solution (CRA, 2024). Chronic diseases are preventable by quit smoking, eat Healthy, regular physical activity, limit alcohol (CDC, 2025) (DSS, 2025), regular screened, enough sleep and engaging with some kind of art (Gallagher, 2024) (Saphier, 2025).

Employers invest on improving working space to generate impact on health, resulting on individuals with lower health care costs, less absenteeism, less disability and increased productivity (HfL, 2007). Measures to create health-conducive infrastructure that prevents chronic disease need to be in place (Schimdt, 2016). The physical environment has a significant impact on reducing patient and caregiver stress, improving health outcomes, enhancing patient safety and overall quality of care, and reducing costs. Attractive and inviting workplace also improves job satisfaction. Hospitals incorporate arts to improve treatment and patients' conditions, just as much as to reduce stress and burnout on staff (Hathorn and Nanda, 2008).

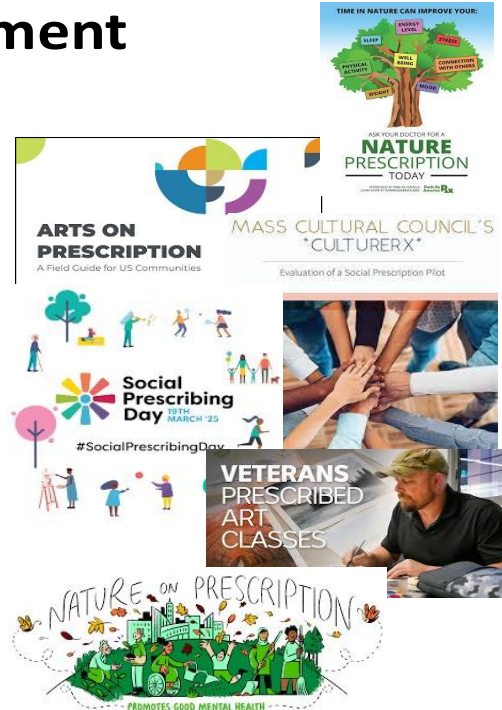
Prescribed arts already resulted on 37% drop on physician consultations and 27% reduce in hospital admissions, saving some US\$ 300 / patient. Music reduces 67% of Dementia medication for patients with agitation (Welch NHS, 2018). It is estimated around 20% of patients consult their General Physician GP for social issues. Social prescribing (including the prescription of arts and creativity-related activities) has been shown to reduce the number of GP visits made by recipients (Jansen, 2024). Therapists prescribe live performances and sports as a way for individuals to explore emotions, practice mindfulness, and connect with the larger human experience (H360, 2025). Engage with Arts, Engage with Nature, Engage with Health is the subject of many on-going initiatives in the USA and elsewhere, as the Image portrays:

Image : Arts, Nature and Health prescription programs



Prevention & Treatment

- **Engage with Health**
 - Early screening, Quit smoking, Less alcohol, Physical exercise, Sleep well and Eat healthy
- **Engage with Nature**
 - Green spaces, parks etc
- **Engage with Arts**
 - Theater, music, dance etc



Source : Author

Annual screening in an US clinic found evidence of 2.014 people with chronic diseases within a population of 10,000 un-screening ones, translating into 494 avoidable patients per year (Fragala and Shiffman, 2019), under the appropriate behavior change. With improvements made in prevention and treatment from behavior changes - increase physical activity, reduce smoking, reduce obesity - some 11 million Americans and 16,000 DCs citizens could escape entering statistics of Chronic Disease annually, sparing over 1 million Americans and 1,200 DCs lives yearly, and saving USA taxpayers some US\$ 400 billion and DC US\$ 700 million every year on early deaths. In Washington DC, chronic diseases cost around US\$ 6B annually or US\$8,400 per citizen, affecting almost 400,000 people, and 14% is spent on avoidable deaths (DC, 2019).

2.1 The Arts

A 45-minutes of artmaking reduced cortisol levels in 75%; group singing drives 33% reduction in anxiety levels; dance movement therapy lower depression by 72% in 12 weeks (Magsamen and Ross, 2024). Within the arts lies a powerful force for healing, combined with science hold our ability to live fulfilling, healthy lives (Murthy, 2017). Art works under single interventions that focused on just one art modality or combined multiple artistic interventions or mixed art with more traditional health promotion (Gallagher, 2024) (Jensen, 2024). Scientific laboratories and corporate offices already hold positions for resident artists, just as art institutes promote scientist-in-residence



positions, collaborations touching on global and societal issues including diseases and pollution. Art addressing scientific concepts such as global health can help to bring scientific discoveries into homes, increasing access and creating an ownership and belief in science that extends far beyond the scientific community (Cresson, 2025).

Performing arts treatment outcomes include improving communication and expression, and increasing physical, emotional, cognitive and/or social functioning (NOAH, 2017), promote self-care, adherence to physical activity, manage anxiety, stress, prevent the onset of depression and reduce depressive symptoms, optimize quality of life and optimism, improve knowledge, increase self-esteem and make healthy choices (Stevens, 2008) (Hathorn and Nanda, 2008) (Gallagher, 2024) (ATC, 2025) (Generative AI, 2025), decreasing the perception of pain, decreased symptoms of distress, decreased levels of fatigue, improved perceptions of body image, reduce length of stay in hospital and improve compliance with recommended treatments, offering substantial savings in healthcare costs (Daykin and Joss, 2016) (Welch NHS, 2018). Engagement with wide range of different arts and creativity may improve educational attainment, reduce truancy and increase school attendance, help to develop social skills, cohesion including reducing the feeling of loneliness, reduce isolation, enhance mood and sense of purpose. Reduce the risk of frailty and slow the rate of frailty progression in older age.

Innovative arts programs and initiatives are being introduced for diverse audiences (NOAH, 2017), they reduce a diversity of chronic conditions and in marginalized groups including underserved, lower income neighborhoods where individuals often do not have access to mental health support, medical care, healthy foods, or programs to help improve their health and coping skills (ESJSNA, 2023). Arts-based programming is a mean of changing behaviors – and keep the changes. These changes in behaviors could improve various health indicators, act as preventative measures, and possibility even keep patients out of the hospital (Gallagher, 2024).

The benefits of arts for health need to be disseminated, and health promotion through responsible behavior span a wide field with a complex interplay of different factors (Schmidt, 2016) (NOAH, 2017). The public must be alerted to cope with strategies looking into incorporate preventive measures to the occurrence and spreading of chronic disease, and communicate this message properly involve a joint effort which performing arts can incorporate making it more accessible, particularly to those who would not have (Cresson, 2025). It is important to design arts programs to improve the quality of delivered care, giving medical professionals new tools for improving diagnostic and communication skills to key messages (Clift & Camic, 2016) (Cernasev et al, 2020).

2.2 The Environment

Leisure-time physical activity is often framed as a simple behavior that people should incorporate into their daily lives once time, financial, and built environment factors cope. Even when medically necessary, people often forgo costly medications and health care, hindering their ability to manage their disease (Benavidez et al, 2024). The social determinants of health, including



conditions in the environments where people are born, live, learn, work, play, worship, and age that drive social and economic inequities (ATC, 2025).

The effectiveness of art therapy on a person's health and well-being depends on external factors relevant to patient and care setting, some support the emotional aspects of health and well-being (Welch NHS, 2018). Addressing environmental health and contributors to chronic disease has large potential benefits from improved health and productivity (Sears and Genius, 2012). Time spent outdoors provides a combination of stimulation and a break from overstimulation from urban environments, resulting in mental restoration and decreased anxiety, linked with improved health (Writer, 2024). Nature exposure improved brain activity resulting on protective effects of exposure to natural environments on reducing risk of cardiovascular disease, depression, anxiety and chronic diseases in general (Jimenez et al, 2021).

Just 20 minutes per day of exposure to natural environments decreases stress and improves cognitive function, blood pressure, mental health, physical activity and sleep (Fudge, 2023). Spending 120 min / week within green spaces improve health (White et al, 2019) (Moula et al, 2023), the presence of nature saves US\$ 40 per US\$ 1 while prescribed arts investment pays average US\$ 10 per US\$ 1, preventing chronic diseases, with 82% of audiences enjoying greater well-being, 79% affirming to have healthier lives after engaging with the arts and, 77% engaging in more physical activity.

Theater companies, producers and other stakeholders must attract greater public and private support, increasing government funding for the arts, revitalizing downtowns and supporting workforce development for the healing of the population (Brenner, 2024). Neighborhood green and recreational space conducive to physical activity is strongly correlated with an area's real estate values. Residents of areas with the highest prevalence of chronic diseases face social, economic, and environmental barriers that challenge prevention and management. Public health efforts to combat the increasing prevalence of chronic disease will require large-scale interventions that focus on the complex interplay of behavioral and environmental factors to address the root causes of health disparities. Future public health interventions in chronic disease management and prevention need to consider nonbehavioral factors that influence the development and progression of chronic diseases (Benavidez et al, 2024).



3. PvtX AI

There is a strong case for Culture & Nature prescription to prevent and treat chronic diseases spreading all over the world and particularly in the USA, making this a well-known concept with growing audiences with the Arts, Environmental and Health sector. Various projects are under implementation in a diversity of locations, with well documented cases of success on preventing and treating chronic diseases and proven economy on healthcare and medicare expenses besides saving lives. The theme is gaining momentum amongst health professionals and companies due to the gains of productivity to companies and lifetime span and life quality gains for people and bringing more audience for culture and nature spaces ending up with a healthier population as collateral result.

Still, takes from months to years to organize a network, programming and monitoring activities, which has resulted on monitoring of a few cases with very specific indicators with no information on when a green space is good and what are the programming, no information on when a culture space is good and what are the programming and no information about health professionals prescribing nature & culture, resulting on no clue about which Nature & Culture treatment is the most successful for each specific.

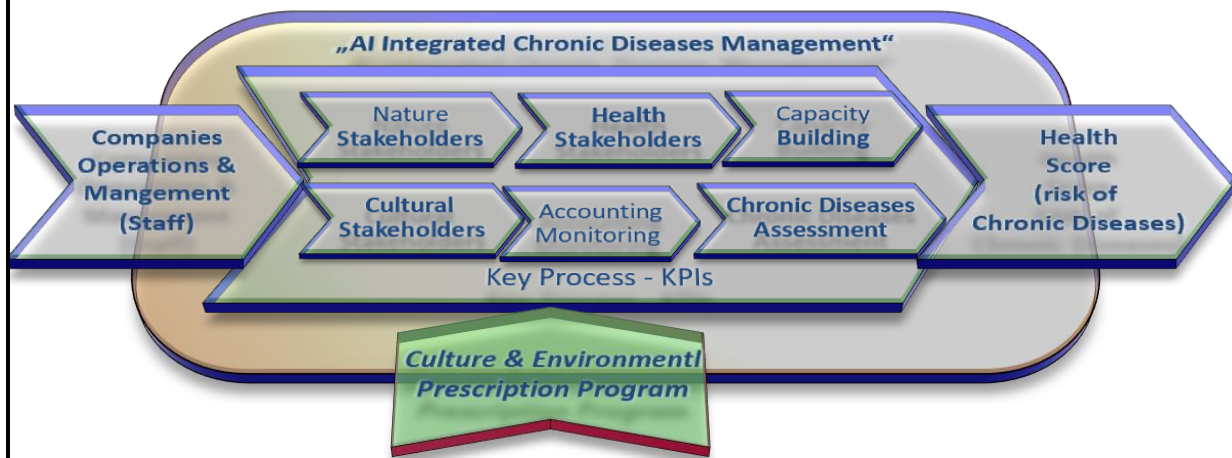
PreventX AI is in Washington, DC, inaugurate in 2025 as a Services provider covering international conventions, national, subnational and local legislation, voluntary & mandatory public and private policies on Non-Communicable or Chronic Diseases prevention & Treatment. PvtX AI is a private business, offering a one-stop AI solution for Culture & Nature programming (Chronic Diseases Prevention & Treatment), towards its Health Score monitoring. The AI solution provides room for Culture & Nature prescription programs to be established, support health, environmental and art professionals to integrate efforts to prevent & treat chronic diseases affecting over 1 billion people around the globe and more than half of USA and Brazilian population today. The business model of PvtX AI is described in the Image:

Image : PvtX AI business model



Business Model of PvtXAI

One stop AI solution for Chronic Diseases Risk Monitoring
Prevention & Treatment Services to companies



Provision of Health Score monitoring is the business
AI Chronic Diseases Risk

Source : Author

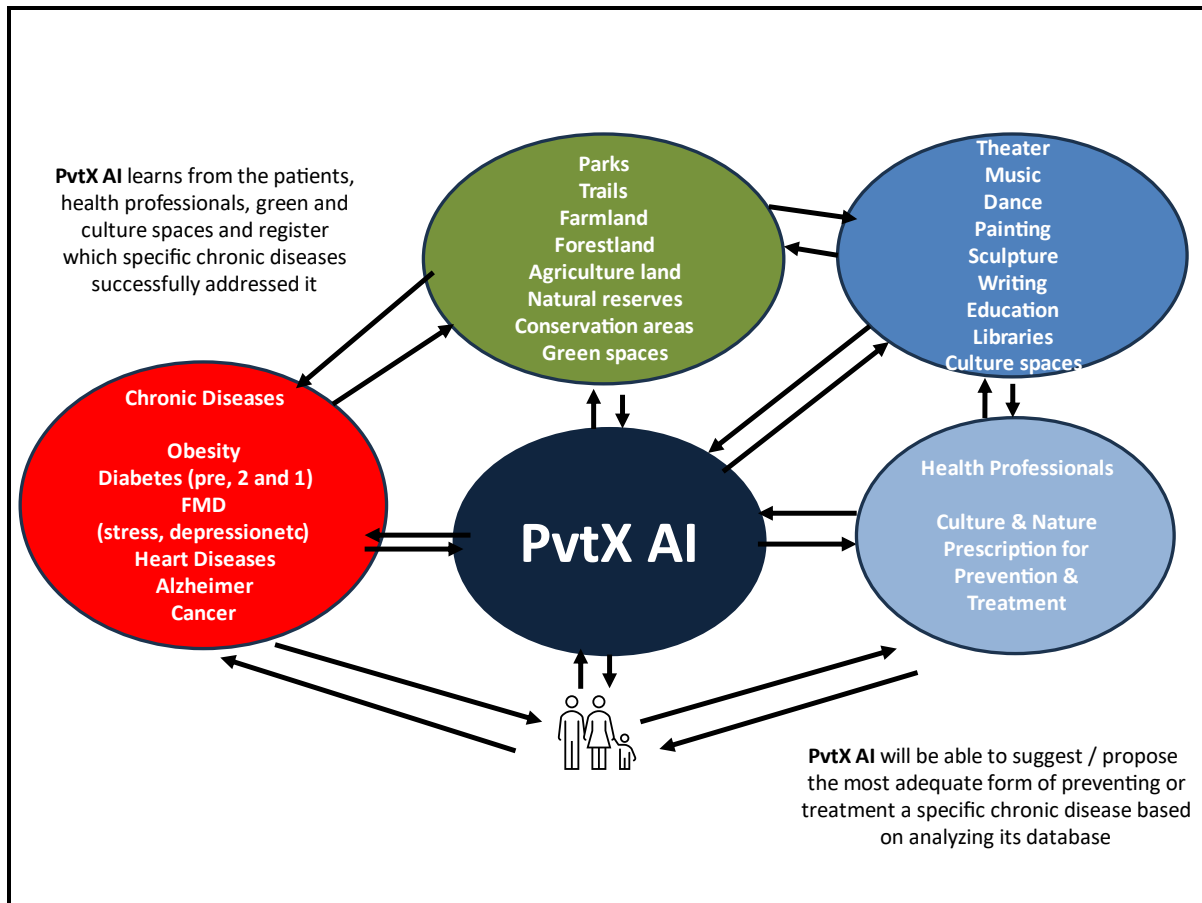
The AI integrated Chronic Diseases Management environment encompasses information from individuals or staff, using KPIs from all factors influencing the occurrence and prevalence of CDs collecting data and information from involved stakeholders – cultural, nature, health professionals, capacity building – and the CDs and the monitoring / accounting framework. Based on that information it weights the influence of factors against a series of individual or corporate information and data to provide an overall number, ranging from 300 to 850, representing the CD exposition risk. After this initial evaluation PvtX AI will start monitoring all indicators and present periodic reports indicating progress towards implementing effective measures to prevent CDs from ever entering individuals or corporate` s lives.

The provision of a Health Score monitoring service is the main result of PvtX AI, which represents an AI chronic diseases risk level generate from analyzing all the criteria & Indicators affecting peoples health. For doing so, PvtX AI integrates information from the occurring or predicted



chronic diseases and the population affected, health professionals, culture facilities and green spaces and learns from their data and information, as the Image shows:

Image : PvtX AI integration and learning



Source : Author

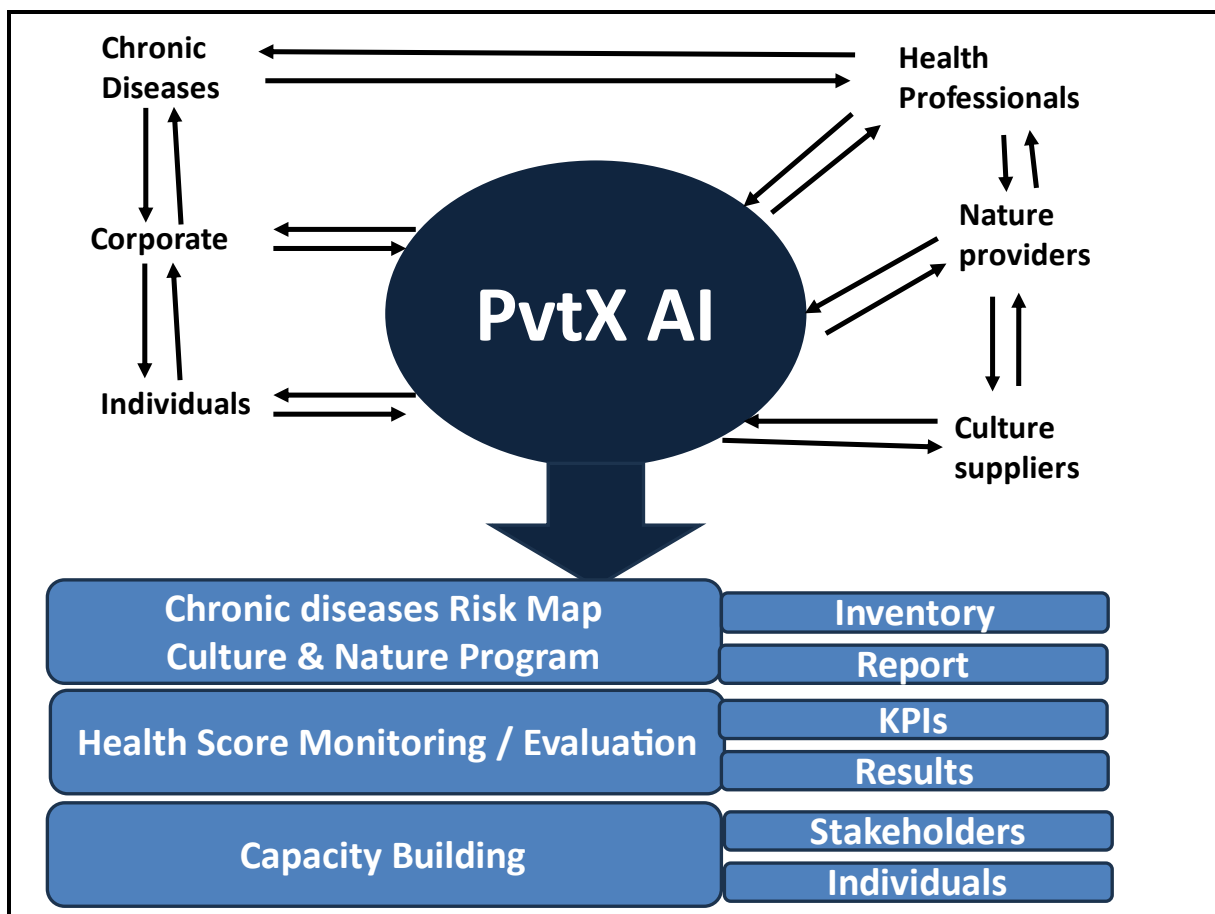
Chronic diseases as obesity, diabetes (pre, type 2 and type 1), Frequent Mental Diseases FMD (stress, depressions, anxiety, loneliness etc), heart diseases, Alzheimer and types of cancer are the main ones affecting the human population and PvtX AI holds information and data from both and the health professionals prescribing, among others, culture & nature to prevent their occurrence and prevalence. All this goes through PvtAI and it can integrated data and information from the ZIP location of a company, a patient or a determined geographical location, offering to health professionals and individuals an analysis of available culture facilities and nature spaces within their region of influence. Over the years PvtX AI will produce and algorithm for each specific chronic



disease's prevention treatment according to individual characteristics and using a specific type of culture and nature space.

With the data and information gathered from all the stakeholders, PvtX AI produces a chronic diseases inventory – social, economic, habits, treatment, environment, culture & nature factors – and a report with detailed analysis. It also generates the Health Score from monitoring specific KPIs and their results in terms of preventing and treating chronic diseases, as on the Image:

Image : Services provided by PvtX AI



Source : Author

Constant capacity building is needed to implement and run a Culture & Nature prescription program making it part of what PvtX AI will offer to stakeholders and individuals willing to learn ways to prevent and treat the occurrence and prevalence of chronic diseases.

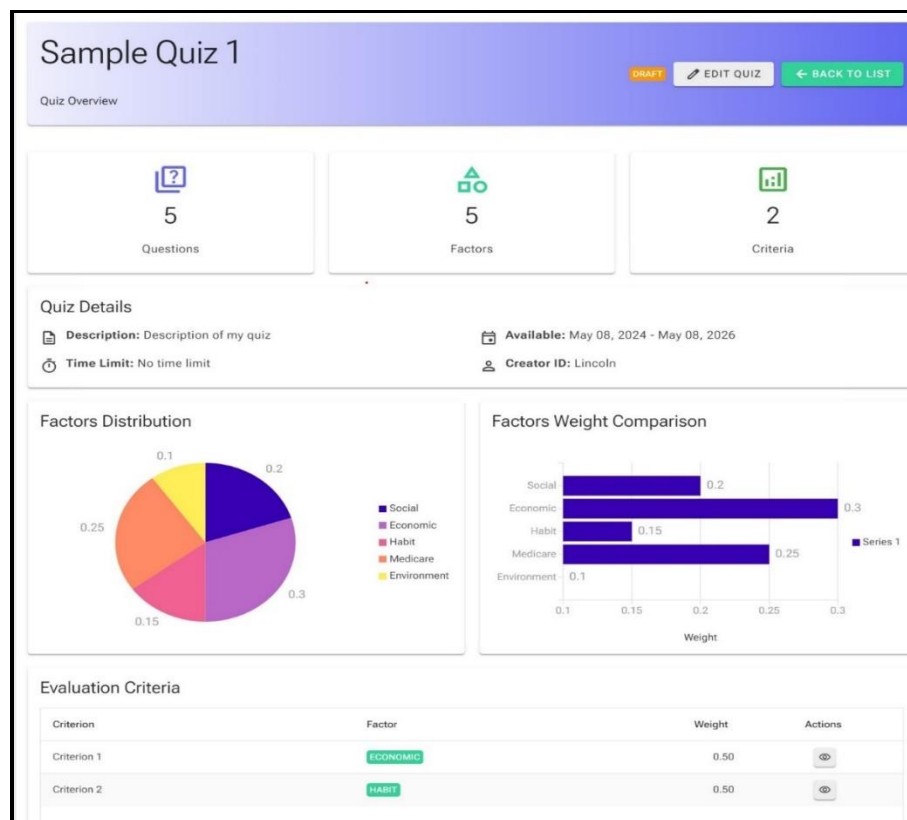


3.1 Core Components

The main components of PvtX AI include Healthcare, Culture and Nature Data Fabrics, AI Health Professionals, Culture and Nature Space Engine, Health Professionals, Cultural and Green Spaces operational modules and Capacity Building module besides the User Interface Layers.

Backend and frontend and mobile are operated by servers with large databank and advanced security. The Front End for the Administrative User is as below:

Image : PvtX AI Front end for Administrative User



The AI solution comprises healthcare, culture and nature data fabric. **Healthcare Data Fabric:** Secure integration of EHR, imaging, lab, genomic, and patient-generated data with robust data governance (HIPAA-compliant). **Culture Data Fabric:** Secure integration of cultural spaces activities, programming, ticketing and audience generated data with robust data governance. **Nature Data Fabric:** Secure integration of cultural spaces activities, programming, ticketing and audience generated data with robust data governance



- **AI Health Professionals, Culture & Nature Engine - PvtX AI Engine:**

The system leverages artificial intelligence to assist Health Professionals access to cultural and nature spaces and their programming as well as to patients' latest results in terms of chronic diseases early screening based on the factors influencing occurrence and emergence. The system engine can predict chances of acquiring a CD and propose measures like walking in a park for 20 min thrice a week, going to the theater to watch a comedy, participate at singing lessons for at least six months and so on. The system process data and information from participants, health professionals, CDs, cultural and green spaces to generate guidelines and help making decisions about prevention and treatment. The dedicated system offers chatbots interacting with the user in search for details, generate proposals to prevent CDs from ever occurring and support the mapping of cultural and nature opportunities based on the analysis of thousands of different information, enhancing the digital flow by interacting with the stakeholders directly.

- **CDs` s Risk, Cultural & Nature Predictive analytics**

The system uses AI to interpret individuals, geographical spaces and organizations historical data to make predictions about the future, looking into patterns in the data to identify upcoming risks and opportunities for an individual, an organization and a geographical space or location. The algorithm learns from all past and on-going CDs, compare data and information from the factors affecting and the criteria for their expression and predicts risks of occurrence and opportunities for preventing.

When it comes to cultural spaces the system interpret data from infrastructure, transportation, dressing codes, reception, food & beverage preferences, ticket prices, schedule of activities, sweepstakes, promotions, location, sanity, programming, dramaturgy and many others, offering an evaluation tailored to everyone, corporation or CDs of which cultural space is the most indicated at that moment. It predicts the chances of a person, a company or a geographical location to reduce risks of becoming a CD friendly environment and draws opportunities to take measures for preventing their occurrence.

Green spaces or natural areas are subject of AI to analyze their availability, equipment / infrastructure, sanity, accessibility, safety and integration so to also predict when they are to turn into CDs attractive scenarios, and which are the opportunities to move away from the tendency. The system interprets data and information including the average green area / inhabitant, exercising equipment, culture spaces, presence of infectious diseases and other pathogens, solid residues, water and air pollution, scent and noises, facilities and walking spaces, wildlife, criminality, pesticides / chemicals, management, information, connectivity and monitoring together with



individual preferences and health professionals guidance to predict which area and frequency will be more suitable for preventing CDs.

- **Computer vision – Smart Watches, cameras etc**

Health professionals can make use of AI vision to interpret images and videos just like humans do, by using the algorithm and models associated with any of the factors, criteria and indicators determined the risk of CDs occurrence and opportunities to prevent. The AI system can identify patterns of behavior, environment, socioeconomic situation, on-going treatments and participation at cultural and nature events besides exercising, blood sugar, cortisol and other monitored by devices.

At cultural spaces the AI system can use cameras and other devices to access audience reactions to performances or students to art classes, capture mental and physical conditions before and after attendance, societal iterations during events and many other aspects of living the culture to identify patterns associated to being at the cultural spaces. It would also register safety, security, sanity and many other aspects to identify how they can be improved to assist on preventing CDs occurrence.

Green spaces need monitoring and integration to AI systems so they can provide useful information about their feasibility to prevent CDs incidence among the population. Images, sounds and other devices can be used to collect useful data and information allowing for an interpretation of current situation and their historical behavior, so to analyze and describe suitability for CDs prevention and eventual demands for improvement.

- **NLP for unstructured data (e.g., clinical notes, medical literature, art programming, cultural exhibits, park activities)**

The Natural Language Processing tool for health professionals will gather information from a myriad of sources including the potential risks of contracting a Chronic Diseases based on the factors, criteria and indicators data and information collected from participants and companies and extract valuable information for preventing their occurrence. Data and information which might be overlooked by humans can be identified as potential significant for preventing CDs and put forward by the system.

Dramaturgy involved on delivering narrative and emotional impact to audience from a variety of forms and the programming itself organized around themes are some of the data and information



gathered by the AI system which would be difficult for humans to analyze against specific profiles or genetics of populations. The AI system helps cultural spaces to translate their activities into opportunities to prevent CDs occurrence and prevalence.

Green spaces unstructured data is abundant and not really correlated to CDs prevention in a proper way, so the AI system goes looking into specifics related to its operation, monitoring and integration to produce information about feasibility for prevention and treatment. A range of green spaces activities and patterns can be neglected easily when prescribing a natural area for prevention of CDs and the AI system will help identify, avoid undesirable and improve desirable performance.

- **Health Professionals and Operational Modules:**

The health professional will be assisted by the AI solution by providing useful information and insights about participants tendency towards, or risk level of acquiring, a determined chronic disease based on the mentioned factors, criteria and indicators. The system can provide AI assisted diagnosis and decision support, reduce / optimize treatment period and contribute to population health management.

- **AI-assisted diagnosis and decision support**

The AI system builds a partnership with health professionals, staff and management to anticipate needs and support decisions towards recommending the most adjusted prescription of culture & nature to prevent chronic diseases. It manages data from cultural spaces, green areas and health professionals' prescriptions on time giving feedback about programming, dramaturgy, ongoing activities and more to enhance decision making capacity. It interacts with participants, health professionals, cultural and green spaces to accommodate not only the right prescription, but the most intelligent and empathic one according to personal profiles and historic in a unique way.

- **Reduce/ optimize time of treatment**

By acknowledging each participant particularities and the possible avenues for prevention within culture & nature prescriptions the AI system already saves time, lives and money and when the CD is already in, it can help reducing also time of treatment, by looking into optimization channels. The treatment will be enhanced by strategies focused on optimizing the results including



monitoring of individual fluctuations on physical and mental health using devices or direct chatbot exchange.

- **Population health management**

The AI system can accommodate and assimilate a large database providing room to classify and group individuals by different characteristics including age, genetics, profiles, historic, geographical location, jobs and many others. This capacity allows for having patterns defined along different groups within a population and decode their behaviors into some general principles and criteria identifying risks and opportunities also specific to their conditions and situations. The AI system can also support public and private policies and partnerships to improve local conditions in favor of preventing the occurrence and prevalence of CDs.

- **Cultural Spaces and Operational Modules:**

Cultural spaces are assisted by the AI solution with information and insights about participants and companies` risk level of acquiring a determined chronic disease based on the abovementioned factors, criteria and indicators and from the user`s database. The system can provide AI assisted programming and dramaturgy suggestion from successful cases to support decision, reduce / optimize communication about special offers and discounts and contribute to population mental and physical health awareness towards culture.

- **AI-assisted programming and Dramaturgy decision support**

Cultural organizations such as religious spaces, performing arts theaters, libraries and bookstores, art classes and ateliers, music reservoirs and schools and a variety of alternatives can be accessed instantly by the AI system together with the data from participants frequency to a determine type of activity, dramaturgy or program. The continuous use of the AI system will build trustable programming and dramaturgy suggestions to accommodate individuals, geographical locations and companies risks of CDs` emergence. It also allows cultural spaces to learn about society and corporate demands and possibly align their programming and dramaturgy to cooperate with the efforts towards preventing CDs` occurrence and permanence.



- **Optimization of Ticketing Price**

There are periods of time when cultural spaces receive less public or have free seats which can be identified and reserved by the AI system to offer for the individuals and companies facing CDs` occurrence risk with better prices, or even free of charge. The AI system can also assist on adjusting the schedule of cultural activities to individuals and corporate availability and communicating between individuals / companies and cultural spaces to facilitate allocating specific time for participation. Insurance companies can use the figures and results from having more people involved with culture & art to re-direct part of their investments from big pharmaceutical building facilities and divert into cultural and green spaces instead. Corporate taxes can have a part of their payments destined to purchase tickets and classes for employees with economic restrictions.

- **Population Mental and Physical health awareness**

PvtX AI system can access and analyze huge data and information about on-going cultural activities including dramaturgy, programming, audience, infrastructure, management, environment, food & beverage and a series of other factors, criteria and indicators influencing the emergence and prevalence of CDs among the population. This capacity allows for having patterns defined along different groups within a population and decode their behaviors into some general principles and criteria identifying risks and opportunities also specific to their conditions and situations. The AI system support public and private policies and partnerships to improve local conditions in favor of preventing the occurrence and prevalence of CDs.

- **Nature Areas and Operational Modules:**

Natural areas, or green spaces, are assisted by the AI solution with information and insights about participants and companies` risk level of acquiring a determined chronic disease based on specific developed factors, criteria and indicators and from the user`s database. The system can provide AI assisted mentorship green spaces managers to successfully achieve levels of excellence on preparing their areas to prevent and treat CDs, including by optimizing communication about on-going activities and special offers and discounts towards the audience seeking for solutions to improve their mental and physical health with nature connectivity.

- **AI-assisted adequacy and decision support**



To cope with the objectives of preventing and treating CDs the natural areas or green spaces must be structure, accordingly, following guidance set by the nature score standard including adequate infrastructure, assurance of sanity against infectious diseases and safety from wild animals and criminals, well signalized with an information center or similar communication channel and so on. The AI system collects data and information from a myriad of green areas and their results on avoid CDs to inform managers about their current position in terms of the scale and propose measure to enhance performance.

- **Optimization of Public Participation**

Just as it happens with cultural spaces, there are periods of time when natural spaces receive less public or have lots of areas which can be identified and reserved by the AI system for the individuals and companies facing CDs` occurrence risk. This will allow for adjustments on schedule and eventually better prices, or even free of charge for the timing and audience to be approached. The AI system can also assist on adjusting the schedule of activities to individuals and corporate availability and communicate between individuals / companies and green spaces to facilitate allocating specific time for participation. Insurance companies can use the figures and results from having more people involved with culture & art to re-direct part of their investments from big pharmaceutical building facilities and divert into green spaces instead. Corporate taxes can have a part of their payments destined to purchase tickets for activities at natural spaces for employees with economic restrictions.

- **Population Mental and Physical health Promotion**

PvtX AI system can access and analyze huge data and information about on-going grees spaces connectedness activities including infrastructure, information, safety, security, sanity and a series of other factors, criteria and indicators influencing the emergence and prevalence of CDs among the population. This capacity allows for having patterns defined along different groups within a population and decode their behaviors into some general principles and criteria identifying risks and opportunities also specific to their conditions and situations. The AI system support public and private policies and partnerships to improve local conditions in favor of preventing the occurrence and prevalence of CDs.



- **Capacity Building Modules:**

The health professionals, cultural and natural spaces managers, individuals, communicates, companies, public officials, students and public will be assisted by the AI solution by providing useful capacity building not only to optimize the use of the AI system, but also about Chronic Diseases and their Prevention and treatment. The AI system can provide assisted guidance on decision making at individual and company level to recognize best opportunities of capacity building directed related to possible shortfalls or needs, optimize participants results and manage population capacity building on managing risks of CDs exposure.

- **AI-assisted Capacity Building and decision support**

To cope with the objectives of preventing and treating CDs the AI system can identify the most recent and successful training materials and suggest ones that should be developed in order to fulfill a predicted emergence at specific groups. PvtX AI can also identify from training courses offered the ones more aligned to specific individuals or companies, according to profiles and historic and support introduction of themes and programs. The AI system collects data and information from a myriad of training courses and their results on avoid CDs to inform managers about their current position in terms of the scale and propose measure to enhance performance on a diversity of areas including health professionals, cultural and nature spaces managers and users.

- **Optimization of participants results**

AI system will support participants by trying and adjusting schedule to availability and distribute over periods of time to maximize learning, keeping updated information available and materials on-time for reviews and preparing for tests. The AI system can also identify the most suitable and feasible training courses available, negotiate packages for corporate and look into content adjustment to optimize alignment to individuals and corporate needs.

- **Population Capacity Building on CDs exposure**



PvtX AI system can access and analyze huge data and information about on-going capacity building training on CDs exposure and organize materials for developing awareness within the population according to risk levels and specific treats. This capacity allows for having patterns defined along different groups within a population and decode their behaviors into some general principles and criteria identifying risks and opportunities also specific to their conditions and situations. The AI system support public and private policies and partnerships to improve local conditions in favor of preventing the occurrence and prevalence of CDs.

- **User Interface Layer:** Intuitive dashboards for health professionals, cultural and natural areas managers, administrators, individuals and companies

The interface with users is powered by GitHub for source codes of the system, Jira activities and task manager, data acquisition and APIs usage with CRM traffic analysis, operating to facilitate PvtX AI interaction.

GitHub for source codes of the system

GitHub is the cloud-based platform where the source code for health professionals, cultural and natural spaces are stored, managed, and collaborated on. IT has a hosting service for Git repositories, allowing developers to version control their code, share it, and work together on developing common goals and agendas. It facilitates collaboration by enabling developers to work together on projects, review code changes, and discuss ideas, organize and manage code repositories, making it easier to navigate and find specific files or code sections. It allows teams of developers to manage and collaborate on AI system development, ensuring code quality and efficiency.

Jira activities and task manager

Jira allows users to plan, organize, track, and control tasks within AI system ensuring efficient and successful completion, it includes Kanban boards - visual project management tool that helps teams manage their workflow and see where individual tasks are in the process, task naming conventions, and the ability to link tasks to larger goals. Helps teams break down large projects into smaller, manageable tasks or issues, allows for prioritizing tasks based on importance, ensuring that the most critical issues are addressed first, enables the creation of milestones to track progress and



ensure that key deadlines are met. It also integrates with various other tools, such as Confluence (for documentation and collaboration), Google Calendar, and others, allowing for a unified view of work across different platforms.

IDEs visual studio, sql server management, R studio

An Integrated Development Environment IDE provides a comprehensive environment for developing the AI system, combining various tools needed in the process, such as code editors, debuggers, compilers, and build automation tools, into a single, user-friendly interface. Visual Studio is a popular IDE developed by Microsoft, used for developing AI systems integrated to websites, web apps, web services, and mobile apps.

It is being used to streamline PvtXAI development process by integrating several essential tools, allowing developers to write, debug, and build code, all within the same application, enhancing productivity by providing a centralized environment for common tasks, help identify and reduce coding errors, improve code quality, and automate tasks. Visual Studio is a powerful IDE that supports a variety of programming languages and platforms, including .NET, C++, C#, and more. It offers features like code completion, syntax highlighting, debugging, and version control integration, making it a comprehensive tool for software development.

The SQL Server Management Studio (SSMS) is a graphical user interface (GUI) tool developed by Microsoft for managing and administering SQL Server. It provides an integrated environment for accessing, configuring, managing, and developing SQL Server components, including databases, tables, and security settings. It allows to explore and manage SQL Server objects (databases, tables, views, stored procedures, etc.) in a tree-like structure, editors for writing and executing Transact-SQL (T-SQL) queries, scripts, and stored procedures, graphical tools for tasks like managing database objects, configuring security, and creating reports. It works seamlessly with SQL Server, allowing users to connect to different instances of SQL Server, Azure SQL Database, and other SQL Server environments.

R Studio is an Integrated Development Environment (IDE) specifically designed for the R programming language. It provides a user-friendly interface and various tools to enhance the R programming experience, making it easier to write, execute, and manage R code. While R is the programming language itself, RStudio is the software that helps you interact with it.

RStudio offers a clean and intuitive interface with multiple panes for code, console, environment, plots, and files, includes a source code editor with features like syntax highlighting, code completion, and built-in debugger. RStudio has a vast ecosystem of add-ins and packages that extend its functionality.



Datasets acquisition and APIs usage

There are many ways locally sourced data as well as data files hosted on the web platform are acquired, and application programming interfaces (APIs) – a piece of software that allows two applications to communicate, is broadly used within PvtX AI system. The number of APIs available for free has grown exponentially in the last decade, APIs tap data from the United States Bureau of the Census, from the Bureau of Labor Statistics, the Bureau of Economic Analysis, the United Nations, the World Bank, the United States Geological Survey, the Centers for Disease Control and Prevention, the Federal Reserve, Yahoo Finance, Spotify, Twitter, NOAA Climate Data, and so many more sources. There is no necessity of downloading manually and uploading files, the old data are updated when new data become available, when the code has access to it. This makes easier data acquisition because there is only needed to focus on keeping our code current and functional – the data acquisition task become automated.

The data collected by the API will include geographical location, attendance, features, characteristics, profiles, programming, dramaturgy and a series of other information coming from all the factors, criteria and indicators involved on evaluating the risks of Chronic Diseases` occurrence and prevalence.

CRM, traffic analysis

CRM analytics gain insights into customer behavior, preferences, and engagement. This data can be used to improve strategies, optimize service, and ultimately increase satisfaction. Traffic analysis specifically refers to the analysis of PvtX AI traffic data within the CRM system, providing insights into how interactions with the website and their journey through the information funnel is being processed. The understanding of interactions with the PvtX AI website helps creating more effective campaigns and strategies to enhance participation and results. The CRM relationship management is always under review allowing traffic analysis to remain operational and ready to start at any given time.

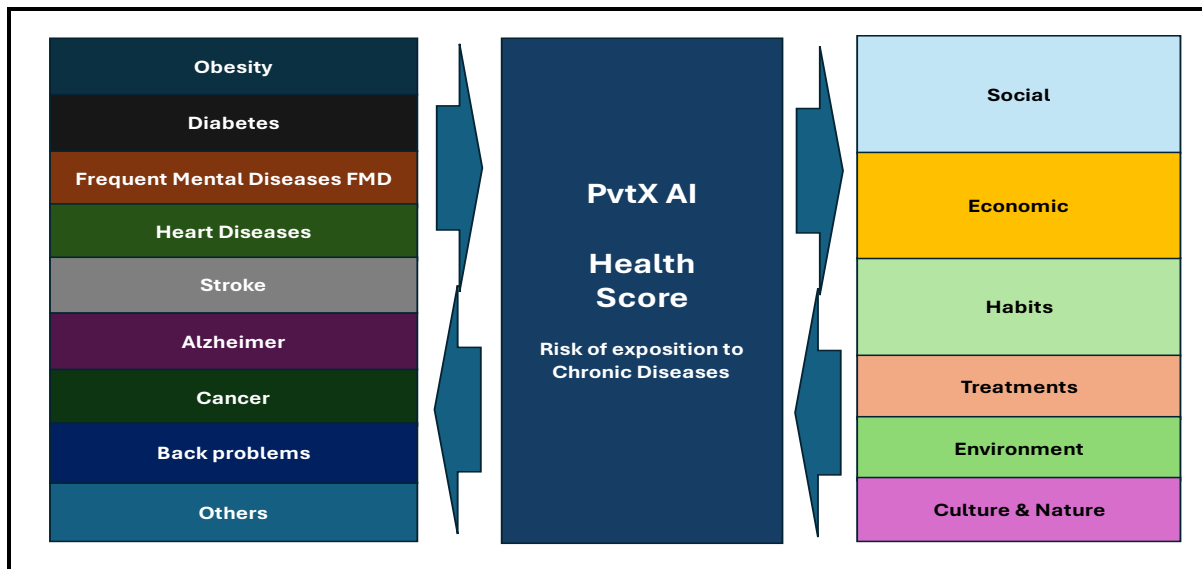


3.2 Key Features

PvtX AI system features and functionalities include chatbots for health professional, cultural and space managers, individuals and companies willing to gain knowledge about their roles against Chronic Diseases occurrence and prevalence. The AI engine interacts with users through chatbot, generate content, imageries, analysis, editing and correction and integrates with other platforms.

PvtX AI key features are related to the early assessment of individuals and corporate factors affecting chronic diseases occurrence and prevalence within society and evaluate the best set of responses to deal with them, as the Image portrays:

Image: PvtX AI Key features

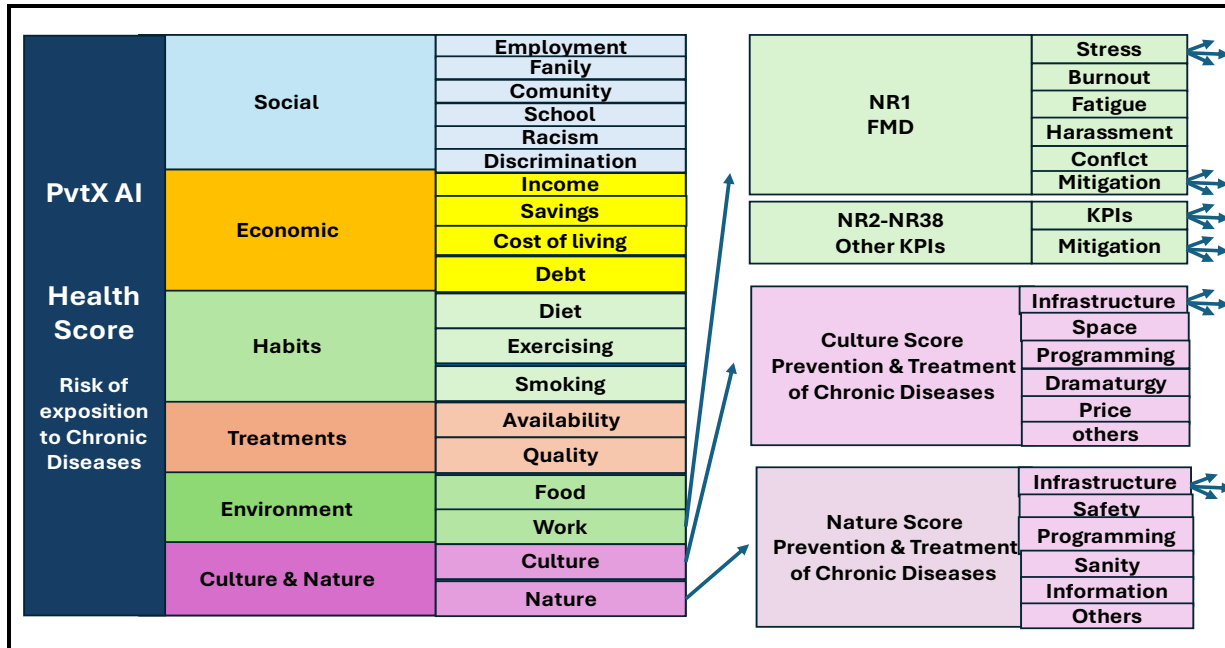


Source: Author

The diversity of CD pressure the Health Score against the factors influencing its occurrence and prevalence, while PvtX AI look into alternatives to improve performance of each factor against the same CDs. It provides an interface between diseases & Factors to organize the flux of data and information in a way it facilitates early detection and prevention. Once a threat is identified, PvtX AI navigates criteria, indicators and meters to identify KPIs for monitoring and mitigation routes for individuals and corporate, as the Image shows:



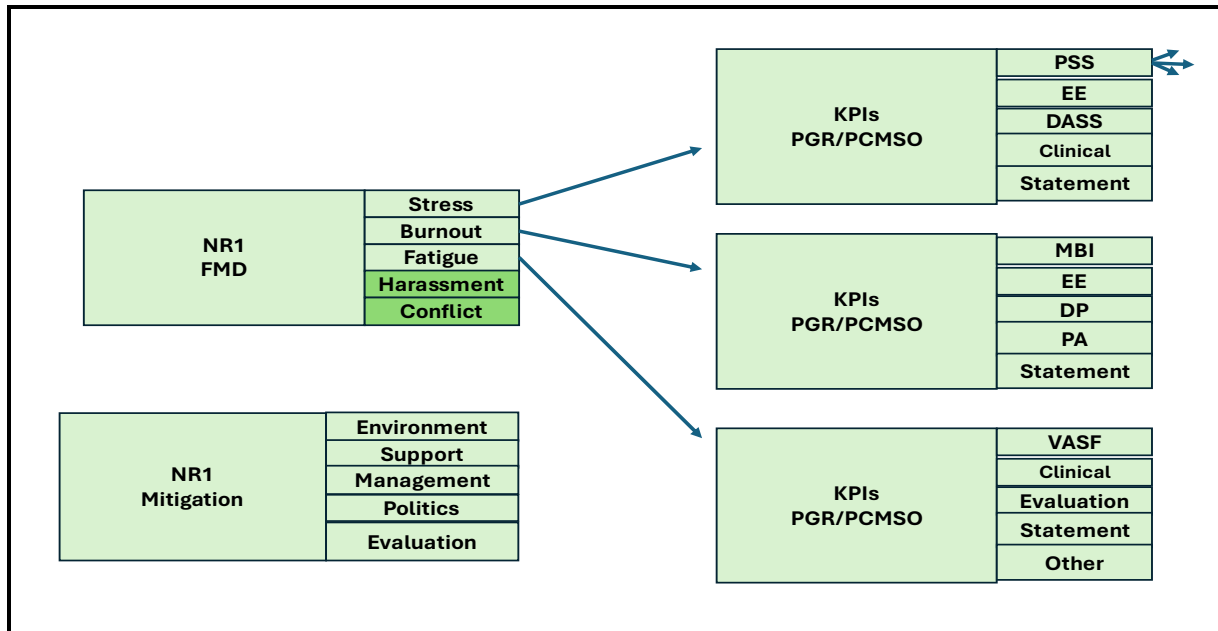
Image : PvtXAI approach to factors, criteria, indicators and meters of CD`s exposition



Source: Author

At the picture Work Indicator, from the Environment Criteria is being further analyzed using a regulatory framework (NR 1 – from Portuguese: Norma Regulamentadora), covering Frequent Mental Diseases FMDs including Stress, Burnout, Fatigue, Harassment, Conflict and the Mitigation alternatives or options. Each of the boxes than opens to a series of further options / alternatives of action. Each of them represents a specific data or information collection using a determined KPI produced from a test or measure directly performed by one of the stakeholders, usually the health professionals, as at the Image:

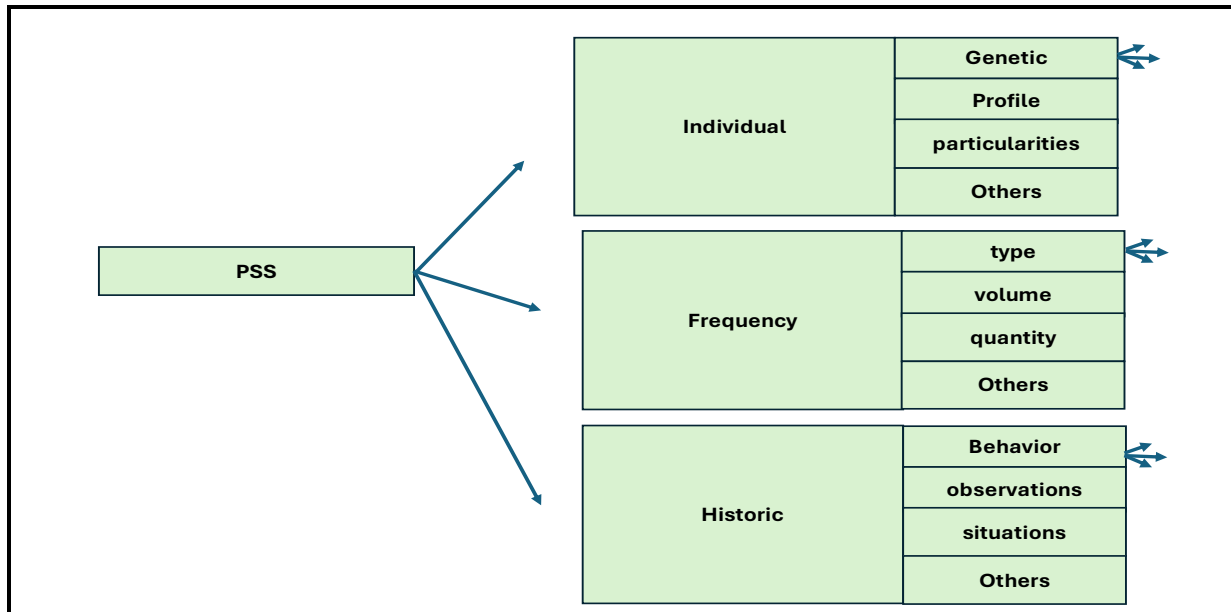
Image : PvtX AI approach to CD data & Information collection



Source: Author

According to the specific CD under scrutiny a series of approaches can be taken in order to inform about the individual behavior against the test or analysis assumptions, as indicated by the Perception of Stress Scale PSS, Emotional Exhaustion EE, Depression Anxiety Stress Scale DASS and other possible methods. Each of these methods by its turn can be referenced to a further analysis involving aspects of the individual, frequency of being subject to examination, historic performance and others, as on the Image:

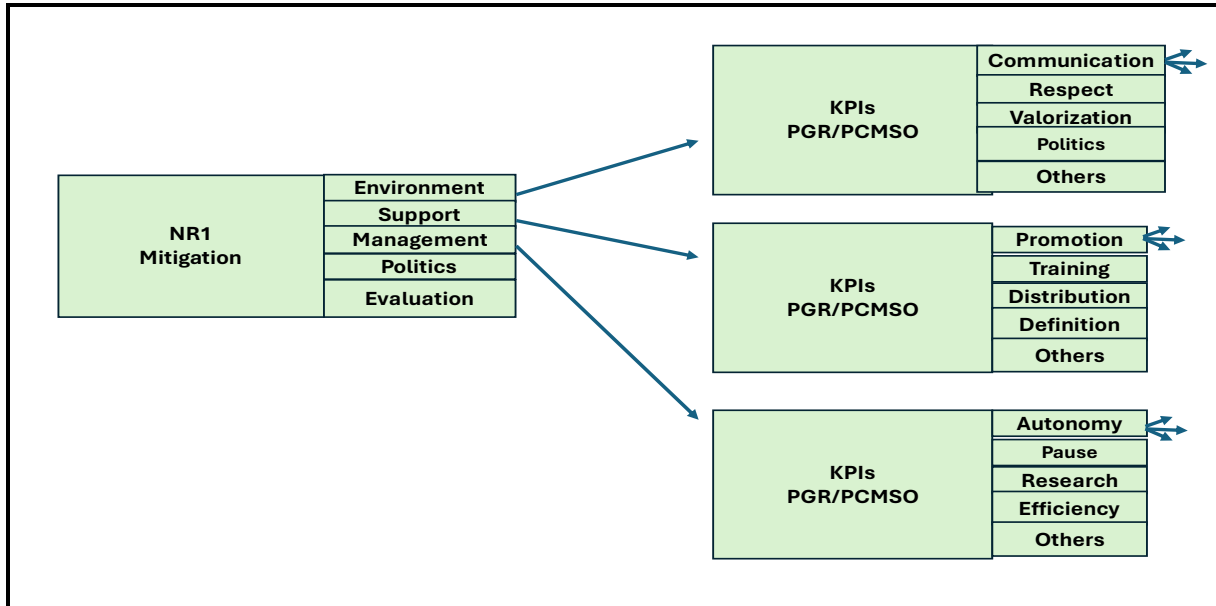
Image : PvtX AI approach to CD data & Information collection



Source: Author

The same PSS test can be affected by differences on genetics, profiles, type and quantity, behavior, situations and other factors, each of them also resulting from a series of events hardly managed by any of the human stakeholders involved in the process, but easily managed by PvtX AI. The same approach is taken to all factors affecting the success of mitigation policies taken towards reducing the risk of exposition, or increasing the health score, as at the Image:

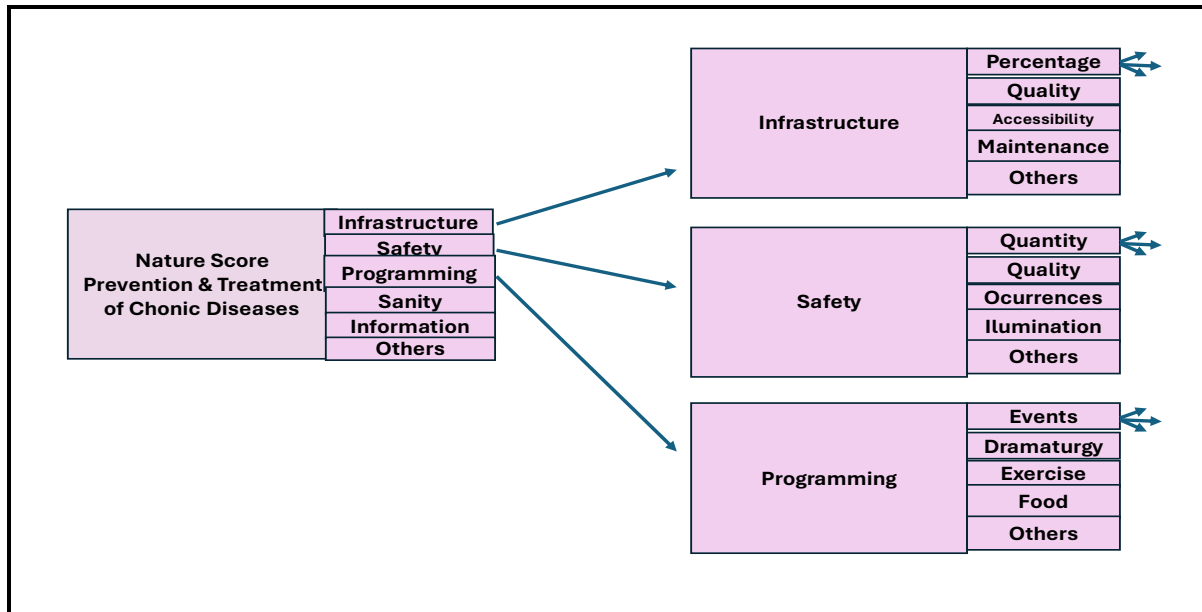
Image : PvtX AI approach to Mitigation Policies data & Information collection



Source: Author

At the box each KPI is performing a task related to the Risk Management Program / Occupational Health Medical Control Program PGR/PCMSO (from Portuguese: Programa de Gestao de Riscos / Programa de Programa de Controle Medico de Saude Ocupacional), with each of the activities implemented to accommodate KPI`s demand generating another series of data and information collection procedure. The same is done with all possible mitigation alternatives at the same time, as at the Image:

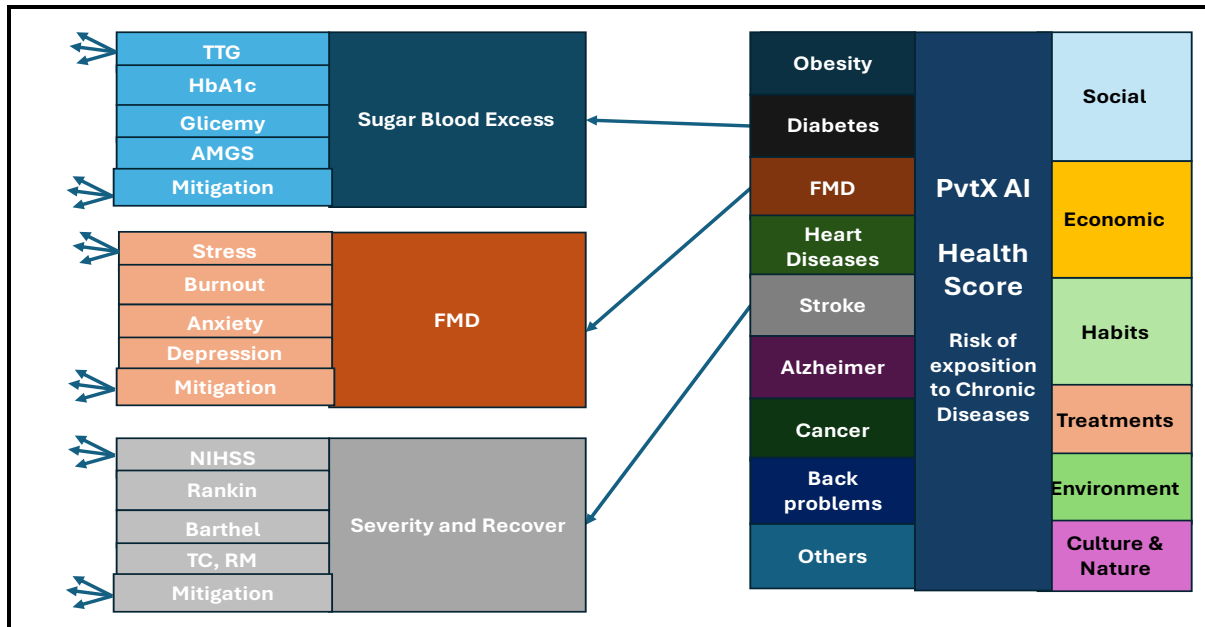
Image : PvtX AI approach to Mitigation Policies data & Information collection



Source: Author

Each indicator of a green space is grouped into criteria, a group of criteria is further assembled into a factor and the group of factors added together give a Nature Score, representing how much, from 300 to 850, it is feasible to cope with the prevention and treatment of CDs. The very same evaluation is performed to have a 300 to 850 Culture Score to cultural spaces collaborating with the prevention and treatment of CDs. Each CD is also analyzed by PvtX AI according to specific factors influencing its occurrence and prevalence, as at the Image:

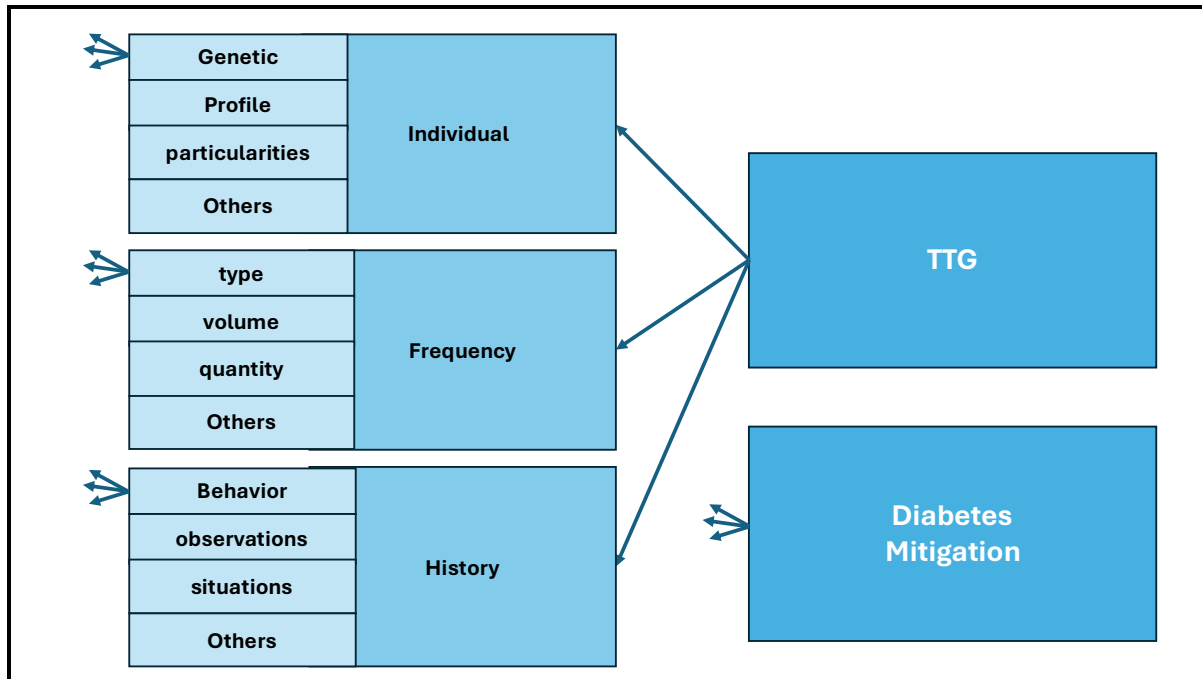
Image : PvtXAI approach to factors, criteria, indicators and meters of CD`s occurrence and prevalence



Source: Author

Each CD has a particular or a series of expressions resulting on altering regular physical or mental functioning and these can be measured using specific tests or analysis, resulting on an evaluation of the actual status of influence. To each of these specific status a value is attributable depending on the type of test, its scale and a series of other factors, as at the Image :

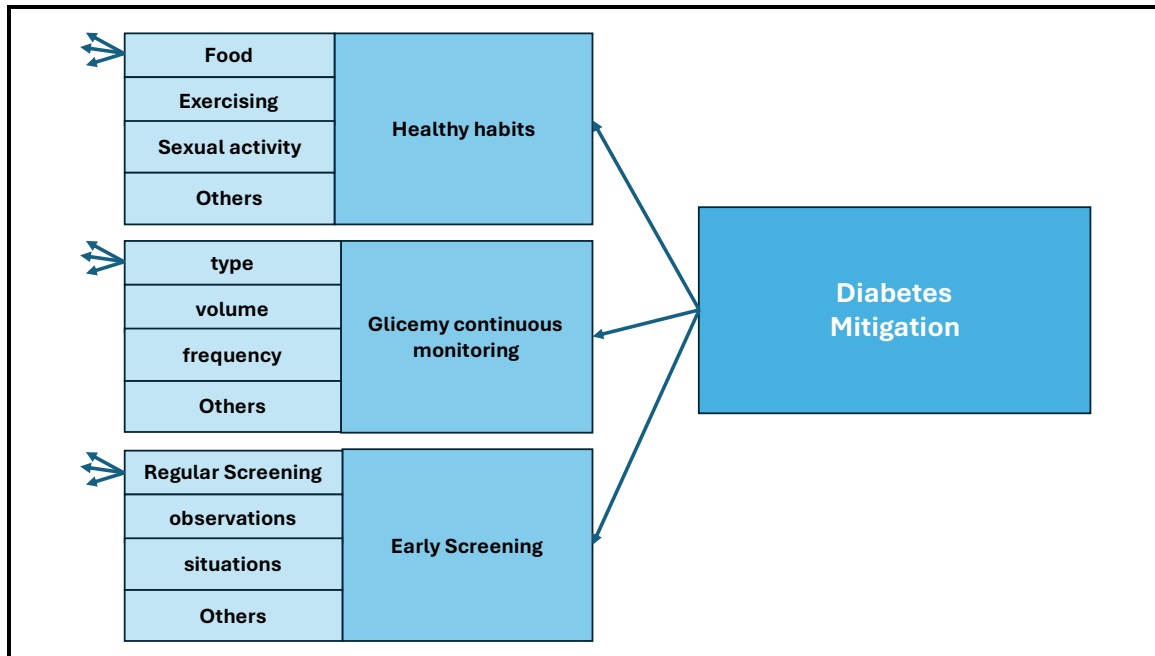
Image : PvtX AI approach to CDS data & Information collection



Source: Author

The test results are analyzed using variables as the genetic, profile, particularities and other aspects of everyone, the frequency of tests and the history of their former results at the same time, offering a strong basis for supporting decision-making. The same approach is taken to identify and evaluate the contribution of mitigation activities to the overall patient picture, as on the Image:

Image : PvtX AI approach to CDs` data & Information collection



Source: Author

Each mitigation activity is analyzed using healthy habits and glycemic continuous monitoring, early screening and a series of possibilities. Each of the existing possible routes are further depicted in terms of specific data and information coming from a diversity of sources, allowing for a large base source.

PvtX AI system interoperates with major EHR systems (e.g., Epic, Cerner), location data system, provides a review of cultural and green spaces via google maps, criminality index, pollution index, weather forecast, GDP, average national income and others according to the specifics laid down by the initial questionnaire applied to individual and corporate users. It is an explainable AI solution for health professionals, cultural and natural spaces managers` trust and auditability, personalized according to stakeholders and interested parties.

PvtX AI is developed on a secure cloud-native architecture with role-based access controls present at all systems, depending on the nature of the data and information might require legal, administrative or personal authorization.

Modelling, NLP, pipelines

Modeling refers to creating mathematical or computational representations of data to analyze patterns, make predictions, and inform decisions. These models can be used for various



purposes, including understanding relationships between variables, identifying trends, or even predicting future outcomes. Modelling will be performed involving health professionals' prescriptions, cultural spaces programming, dramaturgy and outcomes as well as green areas time, frequency and results. The process will facilitate understanding and structuring data elements and their relationships, with visual representation of how data is collected, stored, and managed.

The statistical modeling uses mathematical assumptions to analyze data and make predictions, identifying the best statistical framework to understand relationships between health professionals' prescriptions, culture and nature usage and results in terms of prevention of CDs. This will help understanding relationships between variables, make predictions, and visualize data.

In essence, modeling in data science is a powerful tool that enables organizations to extract valuable insights from data, make better decisions, and achieve their business goals. Pipelines are the channels through which data and information should flow

Statistical model for data and information collection

A statistical model in data collection from health professional, cultural and natural spaces management is a mathematical representation of how data and information are generated from this diversity of sources, using probability distributions to explain them. It helps in making predictions and understanding relationships between the variables accessed within the dataset from the quiz applied to all of them. It is an equation providing insights into the data and potential future outcomes.

The statistical model will help understanding which of the prescribing health professional hold the best results in terms of CDs avoidance, as well as to recognize which are the main features to a cultural and natural space to become an ally on the fights against its occurrence and prevalence. The statistical models provide a framework for understanding data, making predictions, and drawing conclusions based on the collected information.



4. Deployment Methodology

PvtX AI users will need to enter the website or download the APP to start operating the system. Once they have the system it is going to be necessary to register, with an ID and password, giving the user access to his / her own private data. Then the system enters into operation:

- **Phase 1:** Upload of collaborators list or individual basic data

Human Resources department`s lists can be uploaded with the regular information from staff and management teams, which will allow each of them access to questions for them to answer on each of the 34 indicators. The system will collect all the data and information and analyze to come with a level of risk according to each person specifics, generating an inventory of how this is affecting and or being affected by the 5 groups of Criteria of chronic disease's occurrence and prevalence risk. After this information is within the system, it will use to integrate the geographical, special and other information from the cultural facilities and green spaces within the surrounding region.

- **Phase 2:** Data Integration with ZIP Codes – Health Professionals, cultural facilities and green spaces

Once the ZIP Code from each staff and management is uploaded together with the company one, PvtX AI starts gathering information and data about all the health professionals – physicians, therapists, psychiatrist etc – together with the culture facilities – theaters, cinemas, libraries, art schools, music schools, dance schools etc – and green spaces – parks, reserves, farmland, forestland etc – available within an average radius from it – usually 5 miles.

When the health professional, cultural facilities and green spaces are also registered within the system, it will make available a personal webpage with information about how to contact, comments from participants, grades received, pictures and all necessary data to allow patients and the system to have the best decision about treatment quality. This will be validated by the stakeholders themselves, on the next phase.

- **Phase 3:** AI Model Customization and Validation (including health, environmental and culture/art professionals' validation protocols)

Once the model produces the inventory and report on the risk of occurrence and prevalence of chronic diseases professionals from the health, culture/art and environmental stakeholders'



group will review the results and validate its conclusions, before being release to the interested parties, avoiding misinterpretation and other consequences. The validated results are them delivered to the patient or organization and the monitoring period starts.

- **Phase 4:** Deployment, Continuous Monitoring, and Model Retraining (to maintain accuracy and relevance)

Over a diversity of periods of time each patient will be attending his / her specific prescribed treatment and experience determined reactions to it, both physical and mental, affecting the results of the overall Health Score of themselves and the corporate one. The continuous monitoring will cover this and also patients' frequency of attendance at both cultural facilities and green spaces, as well as health professionals report on evolution of the chronic disease condition.

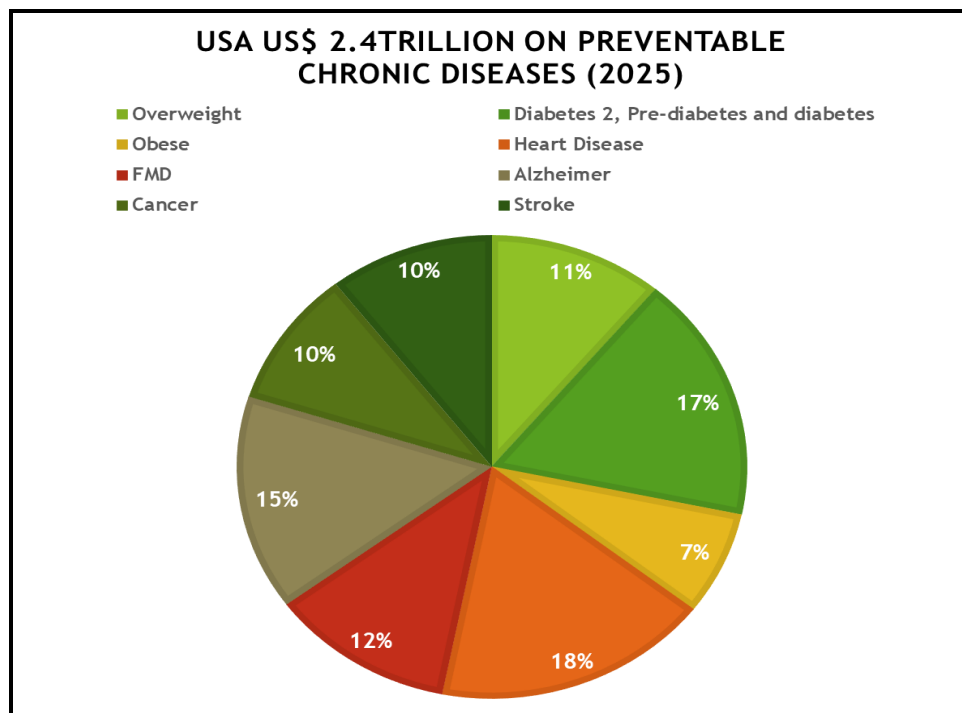
The system learns over time and will be able to produce algorithms identifying precisely which specific type of chronic diseases threatens specific groups or individuals among the population, and which are the most effective culture & nature prescription to prevent & treat its occurrence and prevalence.



5. Business and Target Clients

Prevention of chronic diseases is a gain-gain situation for both business and health, lowering costs associated to regular physical and mental treatments based on the use of medicine and other means. The Graphic has the overall cost of treating preventable chronic diseases only in the USA:

Graphic : USA expenditures on preventable chronic diseases



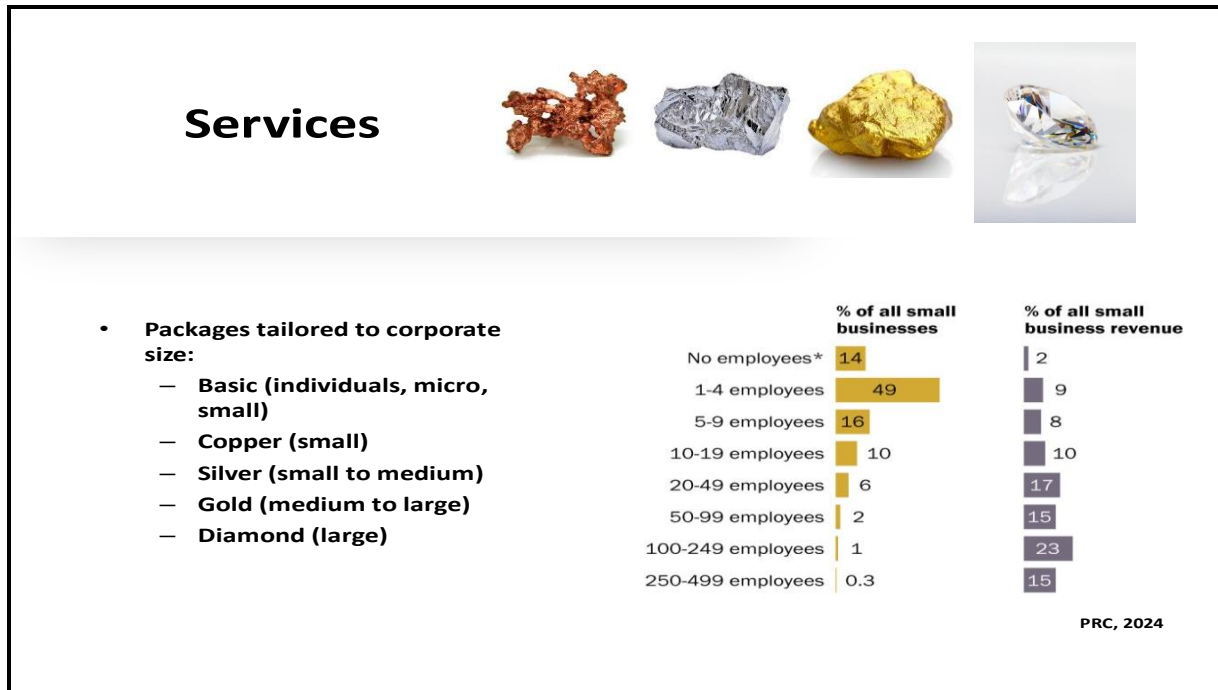
Source: CDC, 2025

A large portion of the US\$2.4T / year spent on healthcare is attributed to managing and treating chronic diseases and mental health conditions and are strongly associated with, preventable and treatable ones² (Benavidez et al, 2024). Heart disease costs \$254B and causes \$168B in lost productivity, projected to hit \$2T by 2050. Diabetes costs \$413B in medical costs and lost productivity. Alzheimer's disease \$360B, projected to \$1T by 2050. Obesity costs \$173B a year. Meanwhile nearly 70% of Americans are taking a prescription medication (Cernasev et al, 2020).

² obesity, hypertension, high cholesterol, coronary heart disease, chronic obstructive pulmonary disease, asthma, chronic kidney disease, diabetes, cancer (excluding skin cancer), and depression



The cost of preventing a chronic disease from occurring is less than 5% of the cost of treating it afterwards with medicine and other interventions, besides the result in terms of a healthier against sickening population. The system



Source : Author

As the Image portrays, according to the number of employees at each company one specific service package is provided: basic – no employees, Copper – micro and small, Silver – small and medium, Gold – medium and large and, Diamond – large corporations. They represent a market of more than 33 million companies in the USA, as on the Table:

Table : Companies in the USA (2024)



USA	
Companies (all)	33200000
Micro and small	33166800
non-employer	27196776
Employ 1 to 4 staff	2925312
employ from 5 to 19	1611906
employ from 20 to 99	477602
employ from 100 to 499	59700
Large corporations (+500 staff)	20000
Startups	1000000
Service Sector	23240000

Source: CP, 2024

Based on the market, PvtX AI has developed an approach to each specific type and size of business according to their expected staff number and the potential do have fee-based stakeholders participating at the various networks to be formed based on the system. The market approach is described at the Table:

Table : Market approach according to company size and stakeholders engagement



Services


PvtXAI USA	2025	2026	2027	2028	2029	2030
Basic	50	100	200	400	800	1600
Coper	50	100	200	400	800	1600
Silver	10	12	13	14	15	16
Gold	0	1	1	2	2	2
Diamond						1
Sub total 1	110	213	414	816	1617	3219
health Stakeholder	100	150	200	250	300	400
Culture Stakeholder	100	150	200	250	300	400
Nature Stakeholder	100	150	200	250	300	400
Sub total 2						
Capacity building	300	150	150	150	150	150
Total USA	410	663	1014	1566	2517	4419

Source: Author

There is no other similar tool or system available on the market today and our approach is still timid to the size of the market. After an initial period of market testing these figures might be re-aligned to the reality. Starting with 110 companies / individuals in 2025 and growing to 4,419 fee-based participants by 2030, the value of each service package is determined according to the level of service agreement involved, as follows:

Image : Basic and Copper Service Packages





Basic (up to US\$3,500/year)	Copper (5,000/year) 
<ul style="list-style-type: none"> - Annual Inventory of Chronic Diseases Risks with the overall corporate Health Score according to the methodology described on the Annex 1 - Annual Report of Chronic Diseases risks - Access to the Nature Stakeholders participants group - Access to the Culture Stakeholder participants group - Access to the Health Stakeholders participants group 	<ul style="list-style-type: none"> - On time Inventory of Chronic Diseases Risks with the overall corporate Health Score according to the methodology described on the Annex 1 - On time Report of Chronic Diseases risks - Access to the Nature Stakeholders participants group - Access to the Culture Stakeholder participants group - Access to the Health Stakeholders participants group

Source : Author

With the basic service package companies and individuals can gain access to an inventory and report of chronic diseases risks and the Health Score together with entering all the stakeholders` groups – US\$ 3,500 / year. The Copper service package allows to monitor performance overtime by having on-time inventory and report of Health Score behavior – US\$ 5,000 / year. More services are attached to the Silver and Gold packages, as at the Image:

Image : Silver and Gold Service Packages



Silver (US\$ 10,000/year) 	Gold (US\$20,000/year) 
<ul style="list-style-type: none">- On time Inventory of Chronic Diseases Risks with the overall corporate Health Score according to the methodology described on the Annex 1- On time Report of Chronic Diseases risks- Individualized Inventory and report of staff members chronic diseases risks at work- Access to the Nature Stakeholders participants group- Access to the Culture Stakeholder participants group- Access to the Health Stakeholders participants group	<ul style="list-style-type: none">- On time Inventory of Chronic Diseases Risks with the overall corporate Health Score according to the methodology described on the Annex 1- On time Report of Chronic Diseases risks- Individualized Inventory and report of staff members chronic diseases risks at work- Access to the Nature Stakeholders participants group- Access to the Culture Stakeholder participants group- Access to the Health Stakeholders participants group- Mapping tool to identify nature, culture and health participants near corporate area of influence (5 miles range)

Source : Author

Individualized reports of chronic diseases risks will allow the company to compare the overall corporate health score to each individual grades, at the Silver package – US\$ 10,000 / year. The Gold Package includes mapping tools to identify nature, culture and health participants within the influence area aligned to each company, or individual, prevention & treatment needs – US\$ 20,000 / year. The Diamond package service goes further, as at the Image:

Image : Diamond Package Service



Diamond



- On time Inventory of Chronic Diseases Risks with the overall corporate Health Score according to the methodology described on the Annex 1
- On time Report of Chronic Diseases risks
- Individualized Inventory and report of staff members chronic diseases risks at work
- Individualized inventory and report of staff members chronic diseases risks at home
- Access to the Nature Stakeholders participants group
- Access to the Culture Stakeholder participants group
- Access to the Health Stakeholders participants group
- Mapping tool to identify nature, culture and health participants near corporate area of influence (5 miles range)
- Planning tool to assist implementing a Nature & Culture ticketing program to address specific chronic diseases identified as critical for corporate compliance
- Planning tool to assist implementing Nature & Culture individualized for staff member at work and home

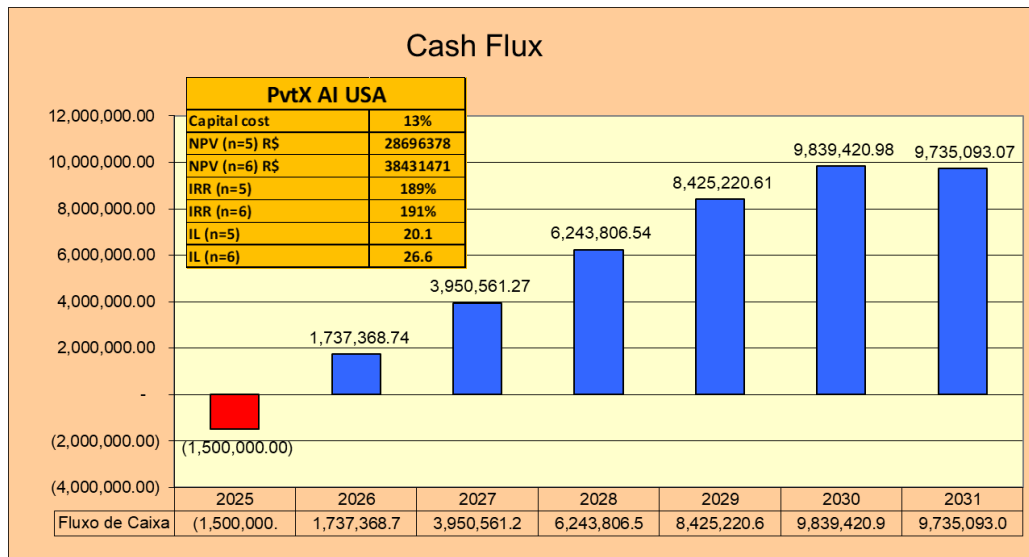
Source : Author

Besides the mapping tool, two planning tools are available to help develop and implement culture & nature prescription programs at the corporate or individual location – tailored to each company. This is the most complete service package available at this point. Using the market approach and the price of each service package against the investments and costs with office and staff, the projections are on the Graphic:

Graphic : Cash Flux, IRR, NPV and IL of PvtX AI (2025-2030)



Projections



Source : Author

With this performance PvtX AI expects to deliver solid economic results over the years and these figures might be adjusted after the first two years of implementation, subjected to market acceptance of the service packages commercial approach.



6. Case Study Alexandria, Arlington and DC – The Kennedy Center for the Performing Arts

There are several cases of success on preventing and treating chronic diseases using culture & nature as prescription, mainly in Europe and the USA. The following is a study case performed considering Alexandria, Arlington and DC population`s chronic diseases and a proposal for a prescription program to the high-risk population. The objective of the study is to demonstrate the value of Prescribed Arts & Environment Ticketing program at the Kennedy Center for Performing Arts to prevent and reduce chronic diseases incidence amongst vulnerable populations. To fulfill this overall objective, some specific ones need to be in place:

Estimate the population to be affected by Chronic disease in DC, Alexandria and Arlington over the next 10 years.

Estimate the population that can have Chronic diseases prevented by participating regularly at KC performing arts programs (twice a month, every month over 10 years);

Estimate the costs in US dollars to run the KC Prescription Arts program and saved by preventing the spreading of Chronic Diseases in DC, Alexandria and Arlington.

Methodological Approach

This is a general study guided towards establishing theoretical basis to analyze effects of Prescribed Arts to prevent and treat chronic diseases, without focusing on any kind of illness but rather on their overall impact on societies. Therefore, a desk review is performed involving data and information about the main chronic diseases affecting the USA population and particularly the ones in DC, Arlington and Alexandria. The desk review looking into information about both the number of people affected and the costs involving on treating chronic disease from the official health institutions and organizations websites and documents.

A desk review is also done covering prescribed ticketing, and any other existing strategies, driven towards incorporating prevention and treatment of chronic diseases through arts & environment programming globally, with focus on USA performances and activities. Based on that review we collected information on possible results from incorporating the practice to theaters and other performing arts enterprises.

Data collected from statistics on chronic diseases are analyzed to have an overall picture of the situation on the USA and DC, Arlington and Alexandria region and used as a base to further extrapolate results to a proposed “Prescribed Arts & Environment Ticketing” program at the Kennedy Center. Emphasis is given to the location and features of the center benefiting chronic diseases

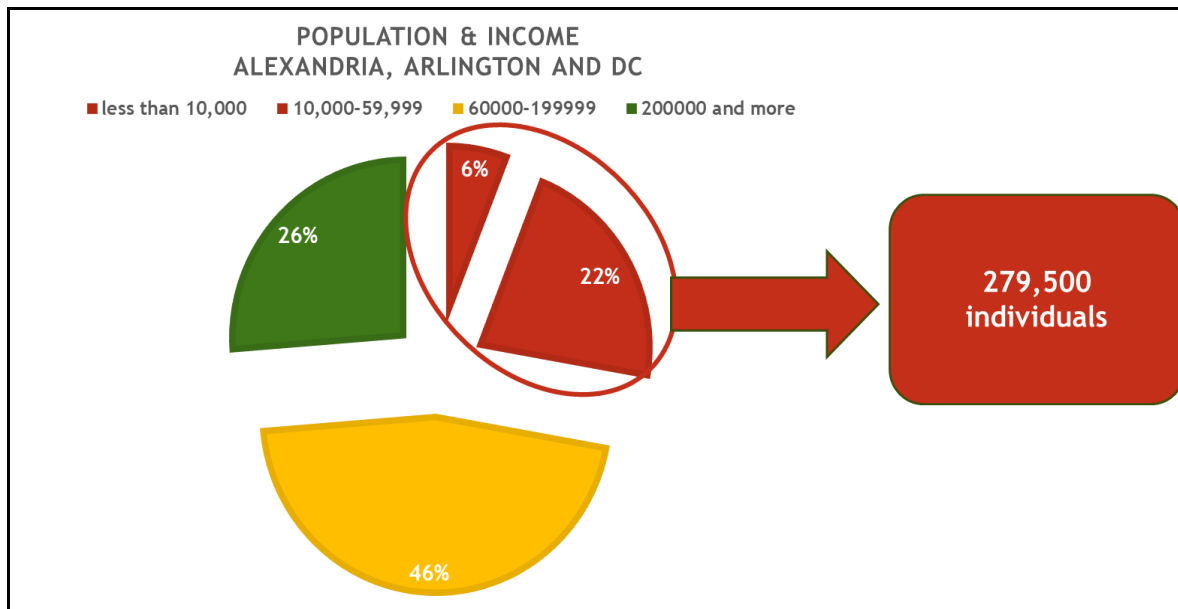


fighting as much as an arts-based health programming, together with healthy food & beverage to make the case for the Center to stand out on this effort.

Results

There is a co-relation between existing facilities and income to the occurrence, prevalence and spreading of chronic diseases, showcasing the influence of social structure and availability of adequate infrastructure to cope with the fight against the issue (DCD, 2025). The Graphic portrays the income distribution within DC region in 4 sub-groups:

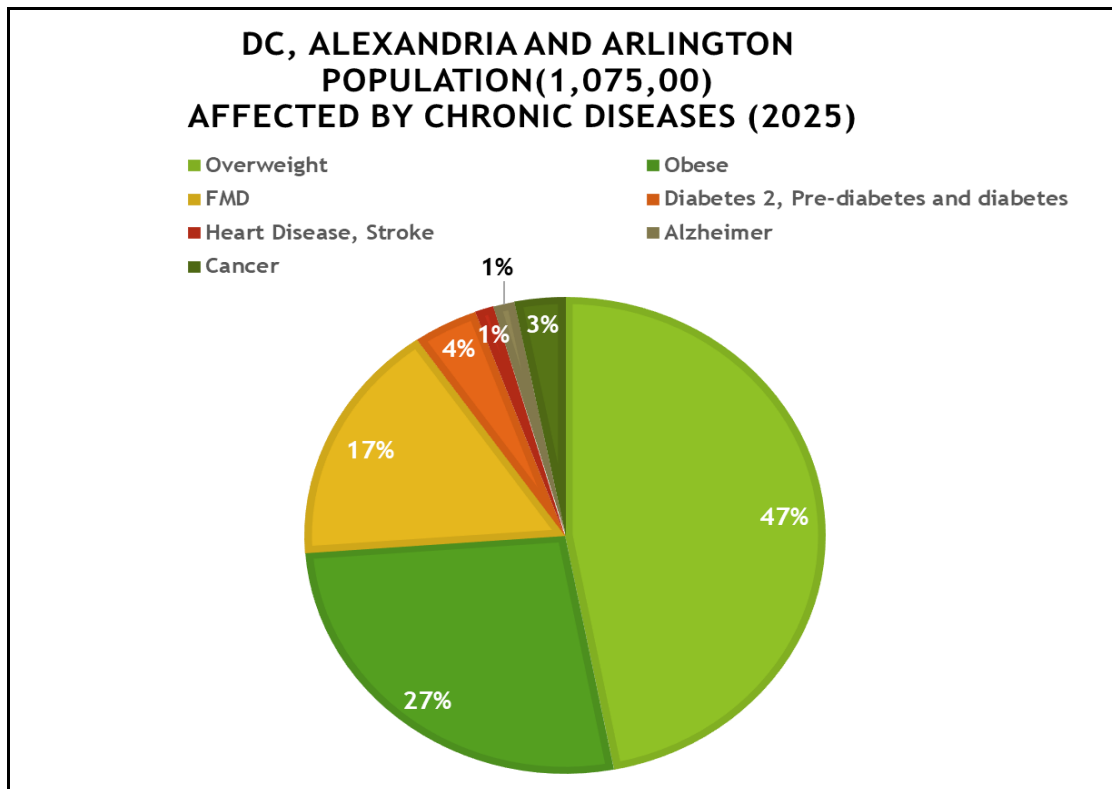
Graphic : Population and Income as chronic diseases occurrence risk factor



Source: Author, Adapted from CDC,2025 and others

There are 279,500 individuals within the high risk of the low-income groups earning less than US\$ 60,000 / year which gives them low to no-access to the performing arts in a regular basis, compromising their mental health and one of the drivers to other chronic diseases. At the same time, there is a similar number of individuals with high income which would benefit from tailored arts & environment programs specially developed to improve their life quality and spam. The low-income population is manly affected by overweight and Frequent Mental Diseases FMD, as the Graphic shows:

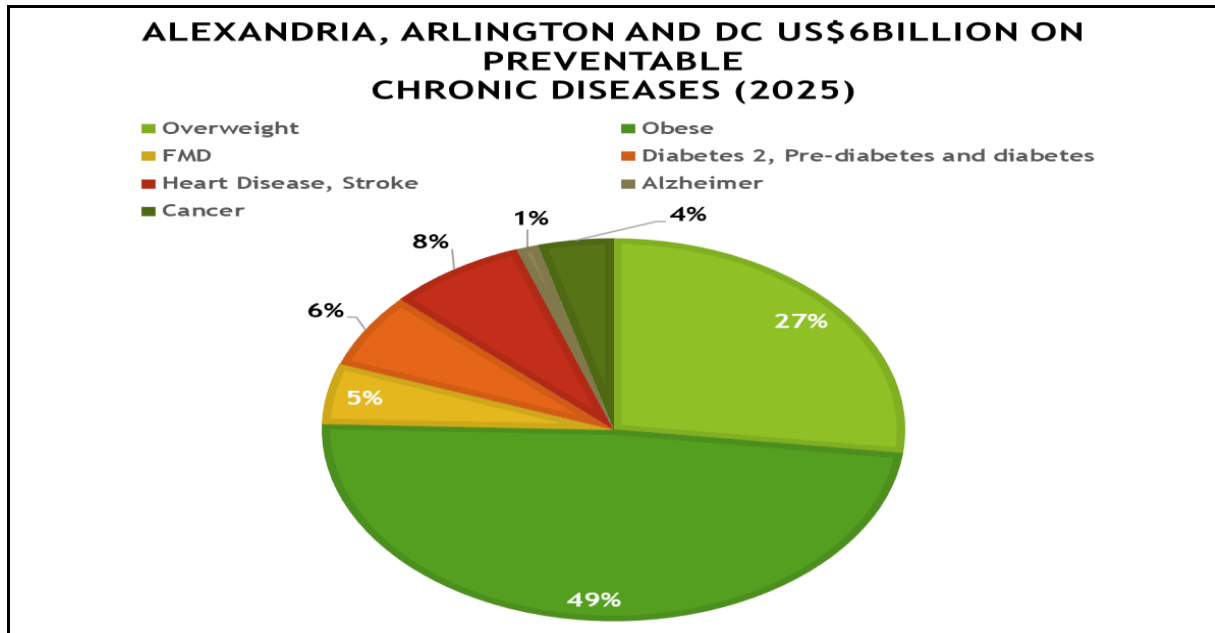
Graphic : Alexandria, Arlington and DC population and occurrence of chronic diseases



Source: Author, Adapted from CDC,2025 and others

All the 7 different chronic diseases are preventable by arts & environment enrollment which can be subject to a special programming within the KC activities, directed towards increasing awareness and offering spaces for habit change. Today, the expenditures on healthcare and Medicare towards treating this very same illness are consuming US\$ 6billion / year within the region, as at the Graphic :

Graphic : Alexandria, Arlington and DC expenditure on preventable chronic diseases



Source: Author, Adapted from CDC,2025 and others

Obesity is the main source of costs on fighting chronic diseases and one of the gates for entering the statistics which can be easily prevented by a change in habits, including incorporating arts & environment to the schedule. Routine visits to the KC to participate or engage on performing arts and enjoying the environment surrounding it for some exercising can change individuals' inclination to attract chronic diseases and this can be done with a fraction of today`s expenditures on treating those very same illness, as the Table shows:

Table : KC investment on prevention of chronic diseases with Healthy Ticketing

Prescribed Arts & Environment - Kennedy Center for the Performing Arts		
Estimates for Prevention & Treatment (2025)		
Location	DC	Alexandria, Arlington, DC
Preventable cases / year	16000	25000
ticket value US\$	40	40
Number of prescribed arts / year	24	24
total US\$	15360000	24000000
Healthcare expenditure with Chronic Diseases / year (US\$)	700000000	1100000000
% for Prescribed Arts	2.2	2.2

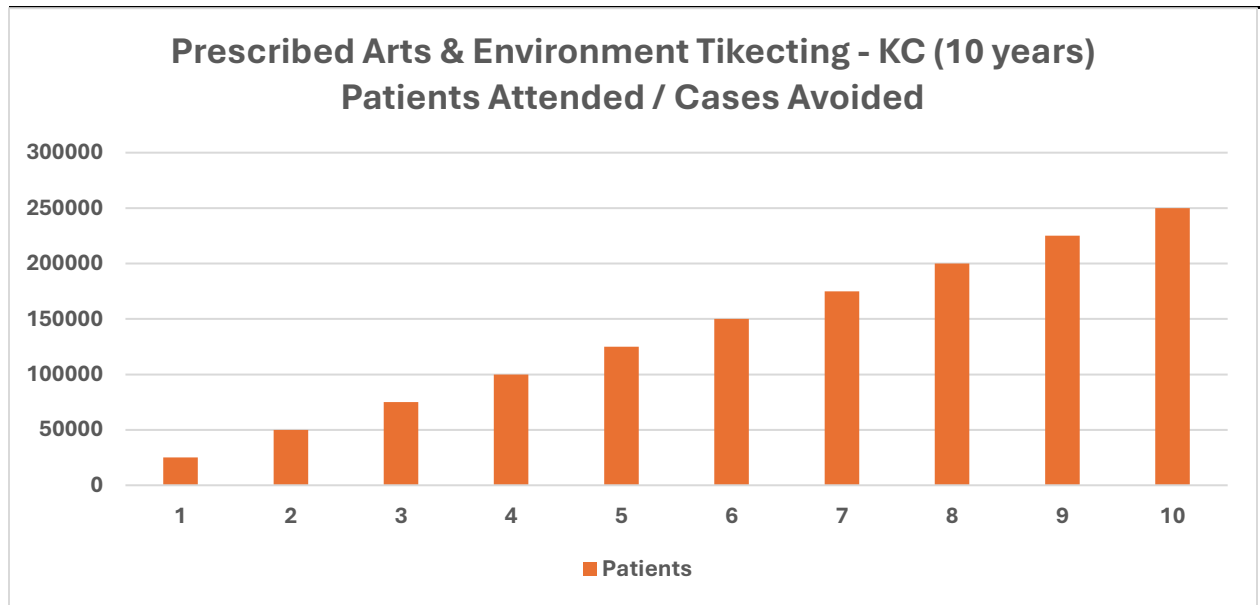
Source: Author, Adapted from CDC,2025 and others

There will be 16,000 new cases of chronic diseases patients entering statistics yearly in DC region while within Alexandria, Arlington and DC region some 25,000 new cases are to occur yearly. All of them can be addressed by a KC Prescribed Arts & Environment Ticketing program, distributing



for attendance of at least 2 activities each month over a year with a total expenditure of some US\$ 24M / year or 2% of today's costs of treating the very same population. Over one decade, most of the high-risk low-income population will be covered by the program, as the Graphic portrays:

Graphic : KC prescribed Arts & Environment ticketing over 10 years projection in number of patients attended

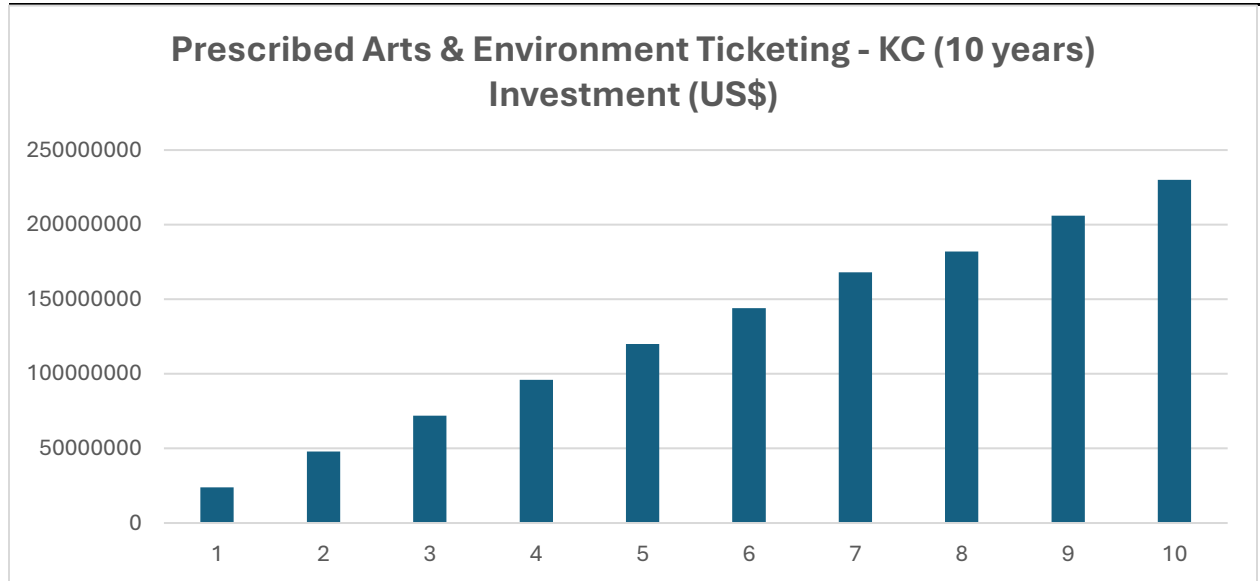


Source: Author

With this level of implementation, some 250,000 individuals will be directed affected by the prescribed arts & environment ticketing within the low-income group with the same number potentially influenced at the high-income group. The expenditure over the years will reach some US\$ 240M / year in 10 years, which represents less than 5% of today's costs of the same illness treated with traditional medication methods. Additionally, a "premium" Prescribed Arts & Environment Ticketing can be offered to wealthy individuals, which would give them access to facilities, meals and programming all over the year. The costs for the subsidized ticketing program are as the Graphic showcase:



Graphic : KC prescribed Arts & Environment ticketing over 10 years projection in US\$



Source: Author

When compared to the figures annually invested on treating the chronic diseases within the region, the prescribed arts & environment ticketing is a bargain, and it invests on changing the perspective of future. With the program of prescribed Arts & Environment ticketing one expects to find a fit and thriving healthy KC audience instead of sic and struggling medicine patients. Based on the statistics, with a change in infrastructure, adaptations for a health programming and considering food & beverage suppliers, we can expect to eliminate the new occurrences of chronic disease not associated with genetics / hereditariness or other personal un-balance.

The statistics about chronic diseases show an increasing number of cases every year without any Prescribed Arts & Environment Ticketing, which would add in 10 years some 65% to today`s expenditure – US\$ 4billion / yearly. Besides that, there is the obvious result on having a healthier against a sickening population. Immediate access to the Kennedy Center can be provided to populations in DC 680,000 people, Alexandria 160,000 individuals and Arlington 234,000 inhabitants, benefiting from a prescribed arts & environment ticketing for chronic diseases prevention program. Chronic diseases can be stopped to happen by adoption of a prescribed arts & environment program directed to approach people which would not go to the theater or exercise due to socioeconomic constrains. Prescribed Arts & Environment ticketing intervention will change lives, save billions of US dollars and some 2,000 early deaths each year.

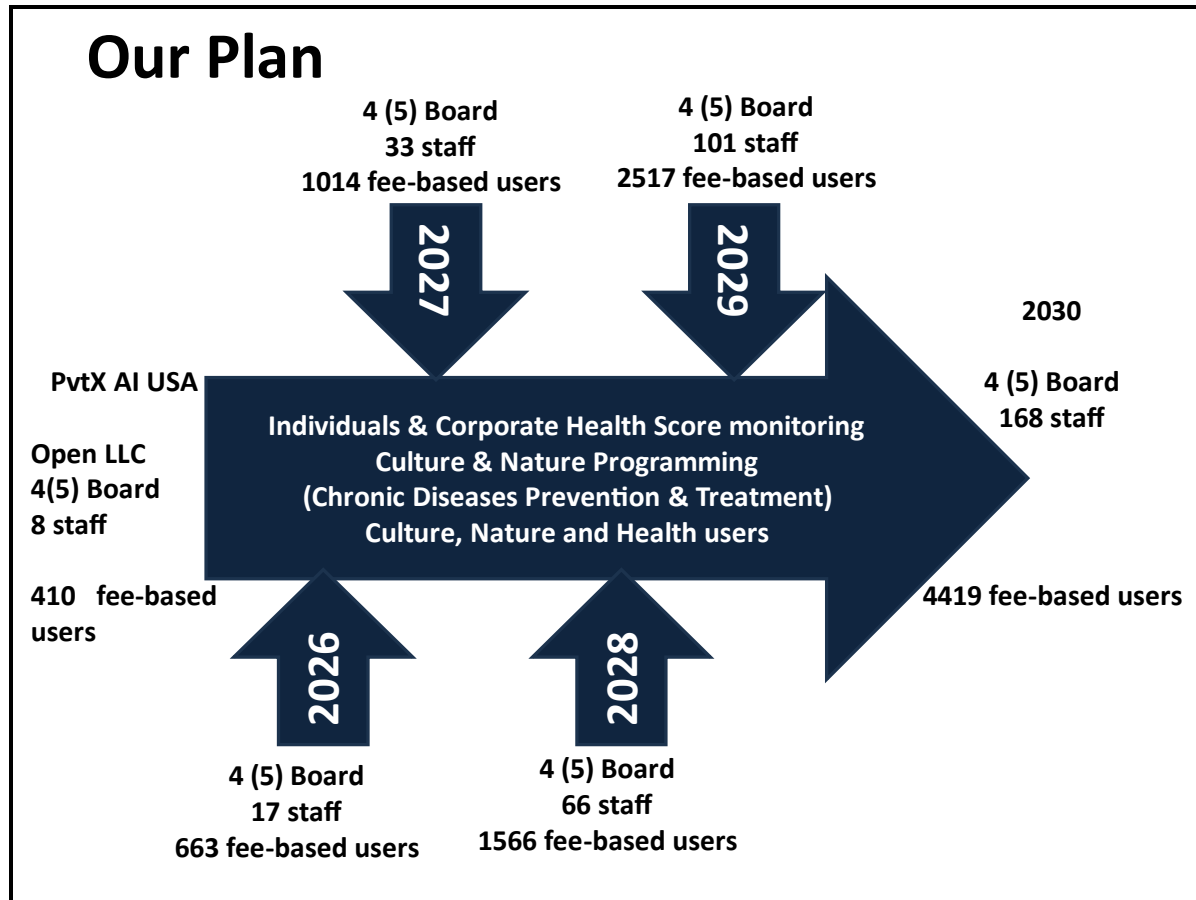


7. PvtX AI Positioning and Market Approach

As of today, there is no similar tool in the market. Similar approaches taken by the Center for Diseases Control Department of Chronic Health included using ZIP Codes to determine socio-economic factors influencing the occurrence and prevalence. With this unique approach of not only evaluating the risks using multiple factors at the same time but also including a culture & nature prescription programming tool, PvtX AI is the only available system for individuals and corporate to evaluate their Chronic Diseases risk level.

PvtX AI plans to open an office to accommodate 4, possibly 5, board members directly involved with the daily activities and 8 staff members dedicated mostly to sales and technical assistance, besides consultants to adequately and validate the process in 2025. In 2026 the plan is to increase the staff by other 9 members, in 2027 reach 33 staff members, 2028 with 66 staff, 2029 coming to 101 staff and in 2030 the 168 staff members will be able to deliver all the service packages, as on the image:

Image : Plan for the first 5 years



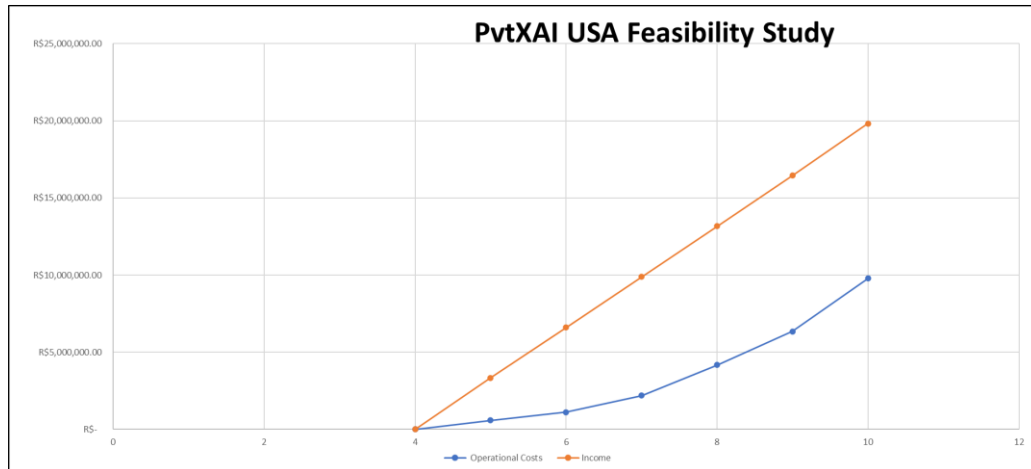
Source : Author

Fee-based users are the base for the income generation and the main focus of all the staff involved on the projections. The overall income against expenditures projected from 2025 to 2030 is at the Graphic:

Graphic : PvtX AI projections 2025-2030



Projections



PvtXAI USA				
General				
Year	Operational Costs	Income		EBTDA
2025	R\$ 591,000.00	R\$ 3,345,000.00		R\$ 2,754,000.00
2026	R\$ 1,126,000.00	R\$ 6,615,000.00		R\$ 5,489,000.00
2027	R\$ 2,197,000.00	R\$ 9,892,500.00		R\$ 7,695,500.00
2028	R\$ 4,172,000.00	R\$ 13,170,000.00		R\$ 8,998,000.00
2029	R\$ 6,350,000.00	R\$ 16,447,500.00		R\$ 10,097,500.00
2030	R\$ 9,780,000.00	R\$ 19,827,500.00		R\$ 10,047,500.00
	R\$ 24,216,000.00	R\$ 69,297,500.00	R\$ -	R\$ 45,081,500.00

Source : Author

The expected EBTDA signalizes a strong valuation for the company on the 5th year which opens strong perspectives as to accommodate future investments and expansion, based on the experience gained at the period. Some potential clients are already identified and part of a partnership with a foreign company to enter the market, as at the Image:

Image : Prospective Clients for the 1st year



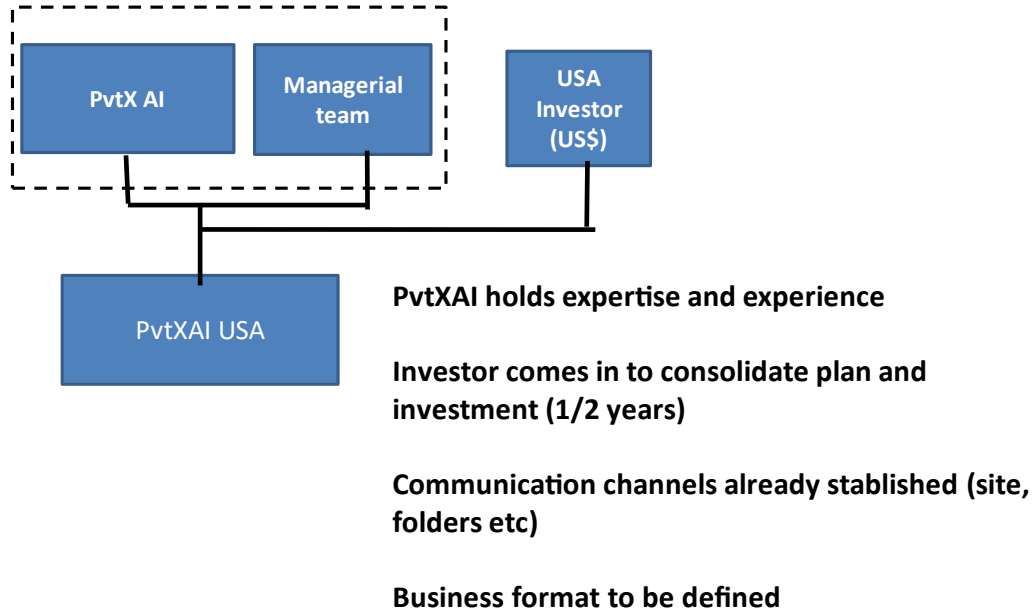
Source : Author

These companies are already within the framework of a services package and the value of PvtX AI could easily be inserted within the contracts, since feasible to corporate objectives with the Chronic Diseases theme. In order to access these potential clients, PvtX AI is looking into a partner / debt to invest, as at the Image:

Image : PvtX AI investment plan



PvtXAI USA Project



Source : Author

As the image portrays,

- Commitment to ethical AI, patient privacy, and regulatory compliance



Our Core-Team



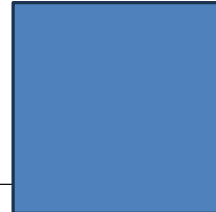
Eder Zanetti

- Forest Scientist
- Environmental Journalist
- Fulbright Researcher at the Kennedy Center for the Performing Arts
- Fulbright Research at Harper College
- UNFCCC CDM AR WG
- IPBES LA
- Experienced on 40 countries



AI 1

- Machine Learning & Deep Learning
- Natural Language Processing (NLP)
- Computer Vision & Image Processing
- Large Language Models (LLMs) & Generative AI
- Data Engineering & Feature Engineering



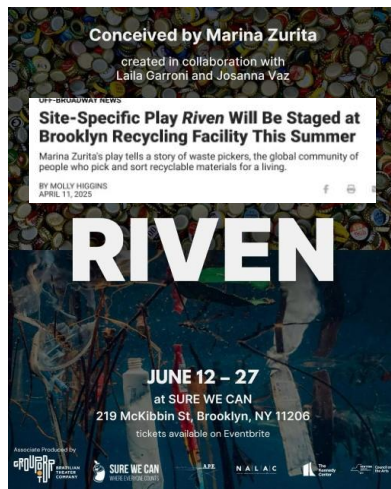
AI 2

- MLOps & Model Deployment (CI/CD, Docker, Kubernetes)
- Cloud Platforms: AWS, Azure, Google Cloud
- Programming: Python, SQL, TensorFlow, PyTorch, Scikit-learn
- Explainable AI & Ethical AI Practices
- Agile & Cross-functional Collaboration

This are already in, and the



Marina Zurita - Culture



Indramara Lobo - Health

- Scientist with Federal University of Amazon
- Integrative and Complementary Practices in Health
 - Pharmaceutical sciences
 - Phd on biotechnology
 - MSC in Economy
 - Social communications bachelor

- Comprehensive support, from clinical validation to operational integration
-



8. Conclusion

AI in healthcare holds transformative potential — but realizing it requires a secure, compliant, and clinically validated solution model. [Your Company]’s AI Solution Model empowers healthcare organizations to responsibly harness AI, improving patient outcomes while optimizing operations.



8. Next Steps / Call to Action

- Schedule a healthcare AI strategy consultation with [Your Company]
- Request a demonstration of our AI-assisted diagnosis and risk prediction modules
- Explore clinical validation case studies and white papers at [YourCompany.com]





Appendices

- **Benefits for companies, individuals, health professionals, cultural facilities and green spaces**
- AI Model Validation and Explainability Framework
- ROI Calculator for AI-enabled Clinical Workflows



- **Benefits for companies, individuals, health professionals, cultural facilities and green spaces**

People are interested in healthy and environmentally friendly products and services (Case, 2023) (Gutsa, 2023) (Policht, 2023) (Illuminem, 2024) (Garay, 2023) (Bloomberg, 2023). Ticketing for health paves an avenue for conscious buyers (Moyseowicz, 2020) (SB, 2023) (Gansert, 2024) (PWC, 2024) (Winston, 2024) specially when practices and projects help spread awareness and conscientiousness in a fun and interactive way (AWT, 2022).

To be healthier, business practices lead to higher costs which can be passed on to consumers at a 'health premium,' and pricing is an efficient way to accelerate healthy corporate progress. Arts & Environment on prescription can be used to prevent diseases to ever manifest, it is hard to know how many people did so without knowing exactly how joining a painting class, watching a comedy or listening to music reduces the likelihood of developing a mental health condition in the first place (Welch NHS, 2018).

Benefits for the cultural facilities

To preserve art's cultural and communal benefits, theaters must find ways to make attendance more affordable for the *average* American, particularly those from lower-middle-income households (Neely, 2024) and exposed to chronic diseases. It would be an improvement when comes to financial positions to become part of prescriptions to prevent, avoid, treat and fight chronic diseases. Tax dollars can help assisting population out of health crises and the performing arts sector to thrive using its boundless creativity to adapt and build new models (BFF, 2024). Arts-based prescription can prevent from ever occurring, advocate for health challenges and treat chronic diseases (Gallagher, 2024), based on arts-based programs for empowering individuals with the best information possible (USA, 2025).

Nowadays together with arts there is a growing number of "green", "blue", "nature" and "park" prescriptions becoming more usual to prevent and treat chronic diseases (Miller, 2014) (Precker, 2021) (Howland, 2024) (LAM, 2024). Exercise can improve both physical and mental health, it helps with mood, stress, anxiety, and depression, and can also improve brain function and cognitive skills. Prescribed Arts & Environment Ticketing trials are already offering patients from rural and remote areas participation in provider-prescribed art experiences in their neighborhoods, including visual arts, dance, music, theatre, spoken word, literary, horticulture and culinary arts. The arts & environment can serve as a unifier and a touchstone for humans, directly impacting individual and collective well-being. Artists employed in health centers and healthcare providers prescribing arts &



environment practice to improve community health, demonstrating the healing power of art & environment (Garret, 2023).

Benefits for the Patients

Arts on Prescription features of programs, participants and engagement with workshops affect the extent to which wellbeing is improved (Jansen, 2024). Prescribed arts benefit specially disadvantaged minorities actively promoting public awareness of the potential benefits of arts engagement for health and developing interventions that encourage arts engagement to support healthy lifestyles. The cross-sectoral nature of the arts and health need to be strengthening and mechanisms for collaboration by introducing programs that are cofinanced by different budgets need to be in place (Fracourt and Finn, 2019). People with art as a prescription tend to benefit from increased engagement and pleasure, describing arts activities as positive distractions, joining new activities, and a shift to gain a sense of direction and returning to normality (Jensen, 2024).

To promote “Prescribed Arts & Environment Ticketing”, theater organizations should increase outreach to families and young people, as well as those who cannot make their way to the theater, in part offering lower ticket prices and special pricing for those audience members (Brenner, 2024), including by accessing tax incentives on the back of implementing good practices (Guerrero, 2023). “Prescribed Arts & Environment Ticketing” can work as an incentive from the health sector to promote performing arts and a chronic disease prevention mechanism, as well as a prescription for mitigating the effects and treating many of the existing ones, linked to “healthy performances”, delivering health improvements instantly for the participant. When mental health providers “prescribe” clients therapeutically benefiting from performing arts, this contributes to 10-15% budget growth year over year, contributing to community healing and raise public awareness about the connection between theatre and mental health (BFF, 2024).

One single visit won’t deliver permanent results or can be applicable to all causes of chronic diseases and audiences of all ages, so the emphasis should be on long term results of performing arts treatment (Bertini, 2023) (Gansert, 2024). People who participated in arts activities more than once a week, or who attended cultural events at least once/twice per year have higher life satisfaction with better mental health functioning (Wang et al, 2020).

Subsidized Prescribed Arts & Environmental tickets should be developed in a way prices reflect the true cost of production, including fair wages, ethical sourcing, environmental and health care, finding a balance that benefits consumers health, the business, and the planet. By being transparent about costs and the positive impacts of healthy tickets, customers feel good about their purchases. An Arts & Environment ticket helps building Loyalty and Trust, standing out in a crowded market, streamlining operations for efficiency, attracting health focused Investors, consumer shift



toward healthy habits and a future of sustainable business success (Velazquez, 2024). There is an overall search into early screening, relationships, physical activities and meditation roles to improve health together with vitamins, fresh food and sugar monitoring (Statista, 2025); the environment, and the programming are of highly relevance to determine the level of prescribed Arts & Environment ticketing contribution to prevent and treat chronic diseases.

An environment inviting to exercise, a program directed to raise awareness, and the enabling conditions - fresh food, vitamins, quality water can be coordinate to improve de overall results in terms of preventing and treating chronic disease. The care should go further than focus on patient medication to overcome the illness to include the whole situation involving the person and which probably put him / her under this condition. A change of behavior needs to be in place, and this involves avoiding the scenery that made you sic in the first place and creating a more health friendly one. This change of habits can occur even before the person gets into the statistics, by adopting preventive measures to adequate daily life to a healthier one.

The programming for Chronic Diseases prevention and treatment

Dramaturgical analysis can be used to study political communication in and around deliberative policymaking processes (Hajer and Versteeg, 2005), to illuminate different discursive aspects of unfolding policy sequences or events (e.g. Hendriks 2009; Visram et al. 2020), and new or emerging forms of governance where there might be unconventional, unforeseen, or disruptive activities (Hajer and Versteeg 2005; Yuana et al. 2020).

The Prescribed Arts & Environment ticketing program needs to operate under strict programming to enforce health habits and change of life standards always from chronic diseases. To achieve these performances dedicated to raise awareness about Chronic Diseases and the factor influencing occurrence and permanence, performances dedicated to alert about the benefits of a healthy life with exercises and fresh food and spaces dedicated to showcase figures on chronic diseases and how change of habits can save lives and money need to be in place. Special events bringing personalities of the healthy scenery to motivate fans to follow healthy habits align with healthcare specialists to provide best results from cooperation for the benefit of a healthy society, developed by scientists and artists together.

The programming for Prescribed Arts & Environment Ticketing needs to be developed to align performances and exhibits with the overall objective of preventing and treating chronic diseases. Chronic Diseases Prevention Art & Environment Programming should be developed by scientists and artists, looking into improving communication and outreach together with raising awareness and behavior change and measure performance against specific KPIs to different diseases and treatments. New experiences need to be introduced to change the course towards chronic diseases

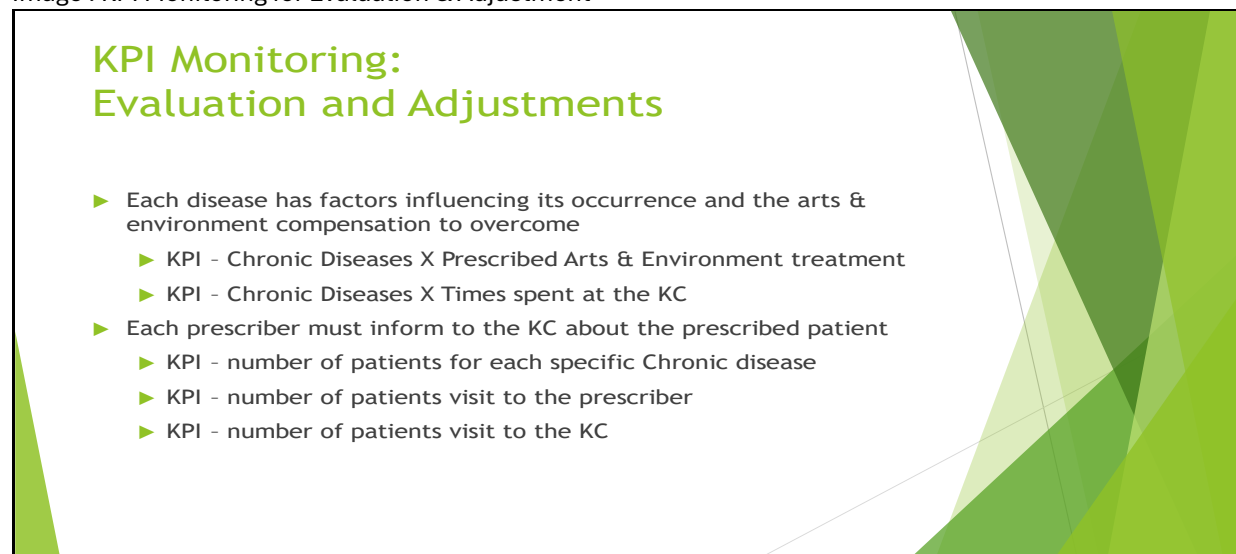


occurrence and prevalence, and the Performing Arts can play a major role, having traditionally influenced generations towards building better societies (Nataki Garret, 2023).

Monitoring and Communication

The communication and outreach activities need to bind for raising awareness and behavior change and the enhancement of Social Impact work should be measure with specific KPIs, as at the Image :

Image : KPI Monitoring for Evaluation & Adjustment



Source: Author

As each diseases have specific factors influencing its occurrence, they all should be monitored accordingly, with the patient informing both the doctor and the theater about his / her regular visits to evaluate progress and adjust, when necessary. KPIs need to measure response to treatment with Arts & Environment by identifying each patient chronic disease and how the treatment is being followed, gathering data and information on the number of patients involved with each specific diseases' treatment and how many times they visit both the theater and the physician over the period of prescribed Arts & Environment ticketing. The staff caring for patients also need to be included. Arts & Environment programming for caregivers creates a common, more normative environment, and offers caregivers an opportunity for creativity and self-expression that allows them to process their experiences and emotions instead of carrying them home or into the workplace. The



arts & environment give medical professionals new tools for improving diagnostic and communication skills and can be used to improve communication of key messages.

Measuring the impact of Arts & Environment on prescription on individual health and wellbeing over time, using psychometric of health and wellbeing from larger cohorts, it is possible to identify benefits in terms of social connectedness and improved social skills and interaction (meeting people, making friends etc.); the ability to foster the development of meaningful relationships with others, increased social confidence, sharing experiences and normalizing emotions as well as breaking and decreasing social isolation, and further building a sense of community. Permanence of prescriptive arts is essential for success (Fancourt & Poon, 2015) (Daykin and Joss, 2016) (Jensen, 2024). Quantitative data consistently reported improvements in health and wellbeing, and qualitative studies reported that participants found Arts & Environment on prescription meaningful, helping to improve their psychological and social wellbeing. Numerous barriers to engagement have been suggested, including physical, psychological, and social barriers, which have implications for practice. More work seeking to understand the nature of art & environment activities that are offered and their impact, and to develop good practice and training for Arts on Prescription facilitators is required (Jensen, 2024) for specific programs (Vollers, 2025). The length of interventions tends to vary, often considerably, whether the positive effect of an intervention is immediate or realized over time, research and monitoring is necessary to evaluate the healthy corporate of arts and health interventions and the relationship between intermediate and strategic outcomes (Welch NHS, 2018).

Prescribed Arts & Environment ticketing is an opportunity of having a Theatre Therapy, offering catharsis — a healthy emotional release. This release can reduce stress and increase mental clarity, fosters empathy and a greater appreciation for the diversity of human emotions and experiences, in a communal experience. Having nature around and the opportunity to walk or run at open spaces liberates the mind from oppressive thoughts and the body from calories and other undesirable dietary assets.

Health Catering

Public health would be promoted by measures such as providing honest nutritional information and other content of products; avoiding claims that are misleading (as is sometimes the case with vitamins, supplements, or some diagnostic tests); not denying or underplaying potential harm (as with so-called alcopops, which are high-alcohol drinks made to look like soft drinks); or not exploiting the “pester power” of children, particularly by marketing products to them and confusing the boundary between giving information and advertising.

The food and beverage supply need to be adequate to people looking into getting and keeping healthy habits – fresh, no chemicals and so on. To beat the Junk Food Lobby by eliminating artificial



additives and industrial beverages – sodas, coke etc, together with high and ultra-processed food and chemicals and maintain clear information about risks of consuming un-health food & Beverages, including the consequences to the occurrence and prevalence of chronic diseases. The catering must work with farmers to have health food, introduce juices, water and similar beverages with the ban on fluorides and looking into improved nutrition factors. Healthy and fresh food for a healthier America audience, as on the Image :

Image : Prescribed Arts & Environment ticketing Healthy Catering



Source: Author

Making available nutritious and fresh food for participants at the prescribed arts & Environment ticketing program must be part of the integrated effort to prevent and treat chronic diseases occurrence and prevalence. People start behind and stay behind simply because of where they live, lack of opportunity, or how society views them (Goldbard, 2018). Properly envisioned, art & environment supplement, complement and amplifies the effects of gardening, it is a workhorse whose job is to distract, engage, comfort, calm, maintain a presence, provide clues to social support, and help retain personal identity.