

Each a first in the world...

OUR PROJECTS TO DIGITALIZE THE HEALTH PLATFORM



**EACH A FIRST
IN THE WORLD**

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1992

Even while in the ambulance, the 12-Channel ECG with a laptop (via the dan call car phone) was monitored online by a remote specialist.

In addition, the transfer of the 12-Channel ECG as FAX with just one click (without the need for printing) has also been achieved.

1992-2001

DIGITAL PATIENT-DIAGNOSIS-TREATMENT-MONITORING FILES all information that could be required for a patient's diagnosis, treatment, and follow up (also including diagnosis and treatment criteria) were saved digitally and provided to health professionals (using the network) in Turkish and English.

A physical copy of the mentioned digital information was printed out (60-80-120 pages) and provided to patients (to help other medical professionals and private health insurance organizations make fast and accurate diagnosis, treatment, or procedures).

Up until 2001, data (blood and urine test results and examinations such as imaging) were provided to patients monitored regularly in 3-4-6 month intervals in varying formats (CD/Mini CD, DVD, USB drives, etc.) in line with the latest technological developments.

1993-1997

IHRSCP (International Hospital-Residence-Sports- Complex projects) were developed. To this day (2021), no project has been developed (even BAE/Dubai) that can deliver the benefits the IHRSC projects, which include housing and technologies that lay the foundation for future city planning, provide for a healthy, safe, and tranquil life.

Software required for the IHRSC projects were developed by the HMG software group between the years 2003-2021. [IHRSCP.pdf](#)

1998

Tens of thousands of pages from medical books deemed the best in their respective fields were scanned with OCR and uploaded to our database. Thereby the base for automatically associating symptoms and findings with syndromes and diseases was laid.

1999-2000

Numerous organizations that develop medical software both in our country and throughout the world were contacted to prevent errors and deficiencies encountered during studies representing ideal medicine with patients from 1992 onwards, to provide the required software for the IHRSC projects, and to raise the medicine world to ideal levels.

The responses we received stated that the current platforms and teams couldn't fulfill our requests. (2000) We then set out to form our own software group and started our studies.

2001-2002

The world's first WEB-based patient follow-up file was prepared using ASPNET and provided to patients and permitted health professionals.

With the click of a mouse, an automated epicrisis could be prepared, and symptoms, diagnosis, and other data could be shared online with patients and other health professionals and/or private health insurance companies.

Results of the same test that were provided with different ranges of reference were displayed side by side for ease of comparison with an algorithm that calculates them automatically according to each range, and data from nine selected dates (either chosen manually or in chronological order) were displayed on the same page.

In the case the results were printed out in a folder, processes from 18 (9+9) dates could be displayed side by side.

2003-2004

E-Government (+++) grounded on health was realized.

To this day, there are only partially digitally integrated government models (only found in some developed countries).

From 2003 onwards, the foundation of software that could fit the data from multiple cards such as passports, identification cards, credit cards, into a single card, and ensure the replacement of said card in the event of loss/theft from ATM-like machines (situated in planned locations such as large airports, banks, passport centers, etc.) for a fee, using retinal scans or fingerprints for identification was developed.

Individuals that medically require, individuals that request or individuals that were mandated by the government to have subcutaneous or long-term subcutaneous implants/chips could be monitored, and could enter/leave work, conferences, balls, and/or cinemas, stadiums, the ticket to which were purchased online automatically with no need for identification checks,

The required software infrastructure was developed for situations such as,

- The participation of non-council members to vote on draft bills etc. instantly with their phones,
- Voting in such a way as to not allow ill-use, via devices such as computers, cellphones etc. in general and municipal elections,
- Arranging appointments for hospitals, doctors, ambulances, and medical devices,

Tracking each step of shipments that require cold-chain transportation such as vaccines, blood tests, etc. via GPS and heat sensors if required,

Live monitoring symptoms and the spread of diseases, determining the source, potential treatments, and required restrictions, etc.

2004-2006

In order for the results and interpretations of clinical scientific research studies (CSRS) to be accurate, that is, in scientific standards, the nutritional needs of the individuals participating in the study should be determined correctly and personalized menus should be presented. Depending on the setup of clinical scientific research studies, some parameters and data could cause erroneous interpretation even if the data of just a single nutrient is not within the determined ranges during the CSRS period.

How should Clinical Scientific Research Studies be conducted?

This standard has not been followed in any of the millions of CSRS studies carried out to date (2021). In other words, this casts doubt on almost all the clinical scientific research studies carried out to date.

The software, which was developed to ensure that CSRS participants be fed in accordance with their daily energy, water and approximately 140 nutrient needs was developed to include the following required data in the database; Tens of thousands of foods, beverages, nutritional supplements, drugs/serums containing nutrients, and nutritional products for metabolic diseases, enteral, and parenteral feeding, (to fulfill the requirements of water, energy, and approximately 140 nutrients) offered for sale on the internet, markets, and pharmacies in Turkey and the world.

2005-2006

Fundamental applications were developed using E-learning algorithms for **Symptom/Finding ---> Pre-Diagnosis ---> DIAGNOSIS**

2006

Association integration flexibility was developed, which was required for the erroneous, cumbersome, and incomplete structure of the (WHO) ICD Code system.

2006-2007

Applications were developed that associate the ICD and ATC/DDD code systems and provide the list of suitable drugs (according to the country they are located) to physicians while preparing prescriptions. For this, the active ingredients of all the drugs in Turkey and those common in all other developed countries were associated with others that include only that active ingredient and/or with other active ingredients (including generic names) according to their countries, forms, dosages etc.

2006-2008

The mostly limited (including only energy, fat, CH, and protein values) and erroneous nutritional values provided on the packaging of tens of thousands of foods, beverages, and fast-food items sold in markets and online in Turkey were replaced with their real values (of energy, water, and around 140 nutrients) and uploaded to the database.

2007-2009

The fundamental software to determine which nutritional supplements and metabolic, enteral, parenteral products and drugs (those also commonly used in other countries) will replace the foods and beverages that are unwanted, or the individual is allergic/intolerant to in the automated menus prepared using the E-Learning algorithms.

2010-2012

1. Weighing the ingredients (initial and final forms) used in the preparation of thousands of dishes, both in grams and as other standards (pinch, tea-dessert-table-serving spoon, ladle, tea-water glass) and ensuring that they are included in the list of ingredients for the meal preparation on the menu recommendation pages.

2. Determining the amount of ingredients such as water, salt, pepper, etc. lost during cooking and saving it to the related field,

3. Weighing the number of grams in the final form of the meals as table-service spoons and/or ladles (level, normal, heaping) and ensuring they are included in the recommended amount per meal section (as grams and other standards) of the menus.

4. The database required for the WEB and Mobile applications to determine the energy, water, and around 140 nutrients the final forms of the meals contain (to ensure highly accurate menu recommendations in the artificial intelligence assisted menus) was prepared. *The Contribution of HMG Applications to the World of Dietetics*

2011-2014

The ICD-Nutrient application that determines how much (low, standard, or high amounts) energy, water, and which of the around 140 nutrients are required in the nutritional treatment of thousands of diseases in the ICD code system (depending on the individual's diseases/disease phase, surgical interventions that change the individual's nutritional physio dynamic that "result in anatomic-physio-pathological changes", and nutria-genetic test results). A large portion of the clinical scientific research studies on diseases and nutrition were scanned and uploaded to the database with these needs in mind. A flexible WEB infrastructure was developed to reflect the individual visions of countries and hospitals.

2012-2016

Thousands of economical and practical foods and beverages, to ensure diverse options, that can provide the energy, water, and around 140 nutrients (carbohydrates, protein fats, amino acids, fatty acids, vitamins, minerals, electrolytes, etc.) required in the nutritional treatments of diseases and special conditions were prepared by professionals and saved to the database including list of ingredients and images.

2012-2014

Comprehensive applications on health, logistics, transportation, technical support, security, tourism, etc. were developed for Mobile (Android and iOS) platforms.

2013-2016

WEB and Mobile/TV applications that prepare menu recommendations for individuals ordering food online and/or using bulk catering services such as hospitals, schools, dormitories, etc. Menu recommendations considering the individual's diseases, PAL levels, exercises, used drugs and nutritional supplements that contain energy and nutrients, determined nutritional needs, food preferences, intolerances, allergies, options such as vegetarian, vegan, pescatarian, etc., conditions such as PEG, bariatric surgery, etc., nutrigenetic test results and family history was made possible.

2016-2021

The Health Message application that places utmost importance on the protection of personal data and provides video call features on both WEB and Mobile platforms was developed. Through this messaging application, medical professionals can communicate with their patients and clients on a secure platform and translate incoming and outgoing messages automatically to their preferred language (among 60 options). Documents and graphics created interactively through the application could be shared in practical and secure formats.

2016-2019

By developing many fully integrated WEB and Mobile applications that prepare fully automated or partially automated menu recommendations, monitoring the compliance of all patients and clients of dietitians to their menus, drugs, and exercises with interactive parameters was made possible. Ensuring the required discipline in nutritional treatments and compensating for potential deviations from the menu was made possible through applications that allow dietitians to monitor how fast their client or patient is walking simultaneously without GPS use, and monitor their compliance to menus, and the deviations (in energy, water, and around 140 nutrients values) caused by changes made to the menus live and intervene by communicating via the health message applications. The infrastructure to allow the monitoring of parameters required for the scientific follow-up of patients/clients (such as blood, urine, anthropometric, and vital parameters), which is also necessary for accurate clinical scientific research studies, was developed.

2016-2021

Applications that allow reports and images of imaging and other examinations, laboratory test results and pathology reports to be associated accurately with the human anatomy were developed. In addition to this, the required laboratory, pathology, and imaging examinations could be listed and requested in correlation with the part clicked on the human body.

The applications required to realize the **Symptom, Finding, Syndrome ---> Pre-diagnosis** association (the infrastructure of which was first developed in 2005-2006) using the human anatomy was developed. The anatomical images were transformed into a structure to allow searching via keywords.

The medical database and applications that were necessary to mark the location of symptoms/findings such as pain, itching, burns, edemas, etc. on the human body to produce practical and accurate diagnosis were prepared.

2017-2018

Applications that allow instantaneous monitoring of the performance of mid-long-distance runners/swimmers without GPS use (distance traveled each second, and how long it will take to complete the race if they continue with that pace) were developed. The infrastructure for scientific athlete performance management was made possible through these applications that allow precise evaluation of the athlete's graphics during training and races, and also the monitoring of anthropometric, vital parameters, blood, and urine test results that reflect the changes made in the athlete's nutrition and training regimens as graphics.

2017-2021

The Health Master Global Solution Partners Network (HMG ÇOA), was established with the aim of providing tens of millions of medical professionals and 7.8 billion people with scientific and quality health care services. [HMG Çözüm Ortakları Ağı.PDF](#)

HMG Solution Partners Network.PDF is presented through interactive and user-friendly pages (many of its features have not even been imagined yet) through hundreds of WEBS and Mobile applications using many integrated artificial intelligence (e-learning) algorithms at every level.

It allows hundreds of modules summarized under the following titles to work harmoniously and interactively with each other: Interactive Appointment, Health Message, Exercise, Symptom, Finding, Syndrome, Physical Examination, Laboratory, Imaging, Intervention, Health Editor, Health Follow-up File, Pre-Diagnosis, Diagnosis, Treatment, Prescription, Nutrition, Private Health Insurance...

The results of tests conducted in network member laboratories can be viewed on both WEB and Mobile platforms as interactive graphs alongside previous results on a timeline, and their other test results are monitored alongside their anthropometric and vital parameters and shared with associated health professionals.

The examinations made in network member imaging centers are presented as reports with comparisons to previous examinations, and as soon as the reports and images are approved, associated anatomically on an image of the human body/saved and provided to the permitted health professionals.

Information on network member health professionals and health organizations can be filtered by address, directions, fields of activity/specialization, name, and location, etc. and viewed.

The principles and special discount rates or campaigns for members of the selected health professional or health organization can be viewed, and Health Message can be used for direct contact to ensure fast response to questions from an authorized individual.

Information that will affect the individual's decision, such as laboratories that offer the option of blood/urine sample pick-up from their house, organizations that provide transport services, pharmacies that offer discounts, pharmacies on duty and their locations, etc. are also provided. By clicking the PROMOTION icon on the Mobile/WEB/PWA applications, individuals can view personalized promotions that can be used shopping on the websites of various companies (electronics, health, foods, beverages, sports, etc.) that are valid for 24 hours and increase with their daily step count as a way to reward daily exercise. By clicking the BONUS icon on the Mobile/WEB/PWA applications, if the total energy expended during exercise exceeds the pre-determined target foods and beverages that reflect the bonus energy amount will be listed as a reward for the individual's effort, and planning and calculations can be made in order to eat or drink more.

Medical professionals of different fields of specialization can form a TEAM or TEAMS to provide solutions to the health needs of patients/clients with a multi-dimensional and disciplined approach.

2019-2021

Applications were developed to recommend the laboratory, imaging, interventional, pathology, examination methods, etc. examinations required for the eliminator diagnosis during the **Pre-diagnosis ---> DIAGNOSIS** stage. Findings and examination methods were provided as images, videos, and text so as to save health professional's time.

The process of transferring the symptoms, findings, syndromes, and disease relationships required for these applications, which are complementary to the infrastructure using e-learning algorithms (the foundation of which was laid in 2005-2006) from scientific sources to the database continues.

2020-2021

Applications were developed to recommend treatment methods such as pharmacological, nutritional, interventional, surgical, physical, etc. diagnosis during the decision stage of the **diagnosis ---> TREATMENT** phase to health professionals using e-learning algorithms. The nutritional module is complete, while work on the pharmacological and phototherapeutic products is still underway (most of it is complete).

2020

A %100 accurate, safe, and permanent solution to the Covid 19 Pandemic was discovered.

https://www.youtube.com/watch?v=mcpzJZ_rs3c

<https://www.youtube.com/watch?v=eTanVmyLQul>

This invention, for which a patent application was made in July 2020, is related to the replacement of air affected by various factors (breathing, speaking, coughing, sneezing, biological, chemical, weapons, accidents) with clean air within seconds, before other people and/or animals breathe in immobile (hospitals, shopping malls, hotels, kindergartens, houses, rooms, animal shelters, etc.) and/or mobile indoor areas (subways, airplanes, trains, buses, automobiles, etc.).

With this invention, it is possible for microorganisms (viruses, bacteria, fungi, etc.), microparticles (pollen, dust, etc.), chemicals, odors, etc., which have the potential to adversely affect health in the outdoor air to be cleaned and disinfected, while also balancing the heat/humidity and gas concentrations of the indoor environment.

With the widespread use of this invention, restrictions on entry to public indoor spaces, travel restrictions, mask use, social distancing, etc. will be no more.

The fear, panic, safety, and future concerns caused in individuals due to pandemics, epidemics, etc. will decrease. Threats that lead to pandemics, especially through viral and other microorganisms will be prevented.

There will be a significant decrease in the number and severity of respiratory disease cases, which cause the death of hundreds of thousands of individuals each year and are frequently experienced in the autumn and winter months throughout the world.

There will be a significant improvement in asthma and other respiratory diseases affected negatively by pollen, dust, chemicals, etc.

All of this will reflect positively on the health expenses of nations and individuals, workforce, and the general health and morale of the public.

In the case of a chemical, biological, etc. attack in a crowded public environment, the air can be cleaned and circulated quickly; thus, the attack will not reach its objective and its destructive effect will be limited to a short time and few people.

● — 2020-2021

We began developing using the **PWA (Progressive WEB application)** platform. Thus, all of our Mobile/WEB applications can be used independently of platform, operating system, desktop/mobile.

2020-2021

WEB / Mobile / PWA applications that allow practical, fast, and reliable evaluation of patient data on a single screen through interactive graphics by medical professionals were developed.

Through these applications developed using E-learning algorithms, all factors that have the potential to affect evaluation alongside the patient's blood and urine test results, anthropometric and vital parameters (such as emotional stress, physical stress, surgery, intervention, blood transfusion, bleeding, drug use, values of energy, water, and around 140 nutrients, sleep history, etc.) are presented to the health professional on a single screen.

On these screens which allow the selection of tests and parameters and viewing them as interactive graphics in the desired order, the reports and images of other examinations and imaging procedures can be viewed simultaneously by clicking on their icons.

By clicking on any value in interactive graphics, it is possible to change that value and its graphic (also in all other (WEB, Mobile, PWA) HMG applications) without refreshing the page. Permitted medical professionals, patients, and their relatives can see the changes made immediately, and if the application is not open, it is provided as a notification.

An interactive structure has been created that manages patients' use of drugs, compliance with exercises and menus with alarms/notifications, and shares them with permitted medical professionals and their relatives. Thus, it becomes possible to intervene without delay and evaluate test results with fewer errors.