Title: COMPUTER IMPLEMENTED SYSTEM AND METHOD FOR MEASURING INDIVIDUAL WELLNESS INDEX

Abstract: A computer implemented system and method for measuring individual wellness index is disclosed. The system and method include a computer-readable medium containing processor-executable instructions that enable a processor to perform acts for measuring individual wellness index. The processor-executable instructions include instructions for receiving, from a user interface, at least one input regarding at least one wellness parameter of the individual; determining, from the at least one input, a value for at least one wellness parameter of the individual; and generating, in response to the determining, at least one wellness index score of the individual.
COMPUTER IMPLEMENTED SYSTEM AND METHOD FOR MEASURING INDIVIDUAL WELLNESS INDEX

FIELD OF THE INVENTION:

The present invention relates to a system and method for measuring the wellness index of an individual. More particularly, the system of the present invention enables a computer implemented holistic approach for maintaining wellness of an individual and prognosis of diseases instead of only treating diseases.

BACKGROUND OF THE INVENTION:

Conventionally in a healthcare industry a primary focus is on treatment and then on prevention of diseases. For some time now, throughout the world, a preventive healthcare practices are largely acknowledged to be an effective way of disease management and is still evolving with rapid advancement in diagnostic technologies and health assessment in the healthcare industry.

Traditionally, health is considered as a pathological, clinical or psychological condition of an individual, however, very recently that a concept of wellness is accepted to look beyond a health of an individual. Accordingly, wellness is defined as a proactive, dynamic, and progressive living in a higher and positive state of body and mind. Wellness involves integration of body and mind, and is characterized by preservation, growth and development of different aspects of oneself.

The recent trends of the healthcare industry have been shifting from only treating illness or diseases to proactively maintaining wellness for prevention of diseases in an individual.

Millions are spent every year on the care and treatment of chronic illnesses, and
implementing an effective system to help manage this care is in the interest of service
payers, service providers and individual recipients alike. An important aspect of managing
care is to prevent and prepare for exigencies well ahead in time. Traits inherited from
parents also play a role in determining the health status of an individual and population. This
can encompass both the predisposition to certain diseases and health conditions, as well as
the health or unhealthy habits and behaviors individuals develop through the lifestyle of
their families.

Current advances have made available various measurement & detection tools and systems
to monitor different indices like blood pressure, individual's weight, cholesterol level,
diabetes, and body mass index in order to monitor and maintain the health and wellness
status of an individual.

These available measurable indicators provide an isolated and generalized health index for a
limited aspect of health status.

Hence, there is a need to develop an efficient and effective system and method which can
incorporate assessment of all aspects of a person's health helping define an index
representing wellness of an individual and provide guidance on how to enhance individual
wellness by pinpointing specific anomalies and filter through interventions.

There is a long felt need for a solution that would provide an insight on the health focus for
an individual, wherein the person or any other third party such as a health insurance payer or
health services provider or government would keep track of the wellness index.

Some of the inventions which provide solution to the above mentioned problem are
described below.

A Patent Application US20090177047 discloses a system and method which offers a
framework for encompassing all medical knowledge ever collected to be utilized to arrive at
a "wellness report". It fails to show how actually the modeling will be done in clinical setting. It also lacks patient centricity.

United States Patent Number 5692501 discloses a health analysis tool. The system and method teaches of output reports and summary for scientific wellness, optimal health, fitness, risks quantification, interpretation, correlation and tracking. The disclosure proposes a health analysis tool, it fails to define a practical output framework which can be readily used by any organization looking to define wellness of an individual. The said patent does not explain how the wellness score (insurability) is arrived at in a clinical settings and in fact simply arranges every available medical textbook mean to encompass the method for defining wellness. Since it harps very strongly on insurability of an individual and not the basic need for an individual to remain healthy through holistic means, it stops just being a worthy idea for payers/insurers for industrial use.

United States Patent Application 20090269773 discloses about a health state observation modality rather than a health or wellness management tool. It is a specific tool directed towards a method of predicting a change in a health status in an individual from a first state to a second state by cellular analysis.

United States Patent Application 20100223075 discloses a system which can be utilized by a health insurer to offer incentives to its members who show healthy behaviors by virtue of participating in health club programs through providing financial incentives for individuals to improve and maintain their health. The said application does not teach about any of a complete holistic wellness index calculating system and method and confine itself to just being a healthy behavior tracker.

United States Patent Application 20070150309 discloses a process management tool providing a defining framework for incorporating a specific health task based survey or questionnaire to an output system, more like a generic query chart attached to a hospital
information system's EMR module. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a query or process tracker.

United States Patent Application 20040010420 discloses a program management tool for health purposes. It aims to develop, prescribe, measure effectively of and then offer adjustments for individualized exercise program to address specific needs and improve limitations in health, fitness and function of an individual. The said application does not teaches about a complete holistic wellness index calculating system and method and confine itself to just being a prescription of physical fitness intervention tool.

United States Patent Application 20070112598 discloses a generic toll which offers a method of hosting a statistical algorithm, a data-mining algorithm and/or a machine-learning algorithm, wherein the data can be further employed to provide health and/or wellness services to participants. The application does not disclose about a complete holistic wellness index calculating system and method and confine itself to just being a health data analysis tool. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a health data analysis tool.

United States Patent Application 20020062225 discloses about a data management tool for someone who wants to manage his wellness. It offers a communication module for connection to a remote medical database through a network wherein the system offers to store and transfer medical data to a wellness/health system through remote location. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a health data management tool through the use of telemedicine network.

United States Patent Application 20100222645 discloses about a system and method which can execute a number of rules against few preset wellness parameters to arrive at certain
assumptions against test and control health data. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a program management and rules repository tool that can compare between two sets of wellness data.

United States Patent Application 20090043612 discloses about a healthcare management tool that can be part of any standard medical practice or hospital management system. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a software utility to manage patient care.

United States Patent Application 20070136093 discloses about method and system for simply being a program management tool for Wellness health management of health plan members wherein health plan can include a plan sponsor, and a behavior modification program targeted to one or more plan members within the health plan. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a health plan administration tool.

United States Patent Application 20050182302 discloses a system, apparatus and method which can store, analyze and/or display physiological information so as to provide care or wellness data to be used typically by care provider and hospitals. The said application does not teach about a complete holistic wellness index calculating system and method and confine itself to just being a health data administration tool.

United States Patent Application 20090054743 discloses a method of simply being an EMR utility which can generate and represent the status of various physiological parameters that are monitored for patients during hospitalization. The said application does not disclose about a complete holistic wellness index calculating system and method and confine itself to just being an EMR interface to a hospital information management system.
United States Patent Application 7647285 discloses about a system which can align processed health information to an intervention planned for health or Wellness. It offers this utility by employing a statistical algorithm, a data-mining algorithm and/or a machine-learning algorithm. The data can be further employed to provide health and/or wellness services to participants. The said patent does not discloses about a complete holistic wellness index calculating system and method and confine to just being health data analysis tool.

United States Patent Application 20100153287 discloses about a patient support utility rather than a Wellness management tool. It offers a system that facilitates the reduction of the overwhelming psychological nature of the diagnosis event by compartmentalizing it into manageable phases through different clinical and psychological modalities. The said application does not disclose about a complete holistic wellness index calculating system and method and confine to just being a patient and care support utility.

United States Patent Application US 2006/0026036 A1 discloses about an employee benefits program evaluation and management tool. It caters to the employee benefits by determining lifecycle health costs based on the personnel model; evaluating impact of a lifestyle program, a best health practices program, and an employee benefits program. It also evaluates the programs based upon benefits parameters. The said application does not disclose about a complete holistic wellness index calculating system and method and confine to just being a employee health benefits program utility.

In light of the above-mentioned prior arts, it is evident that there is an unmet need to provide a customizable, efficient and effective system and method that can incorporate all aspects of a person's health in defining an index representing wellness of an individual and provide guidance on maintaining individual wellness. Thus there exists a need to address the long standing problem of providing a complete holistic wellness index calculating system and method which does not confine itself to just being an employee health benefits program
utility, a patient and care support utility, health data analysis tool etc.

**OBJECTS OF THE INVENTION:**

The principal object of this invention is to provide a system and method for enabling a holistic model of managing one's health in the most optimal dimensions of, including but not limited to physical wellness, intellectual wellness, emotional wellness, social wellness, occupational wellness and environmental wellness.

Another object of this invention is to provide a system and method for measuring the wellness of an individual.

Another object of this invention is to provide a system and method comprising wellness index serving as a pivotal starting point for general population, governments, payers, providers and employers seeking to move from the simple care and sickness management into the integrated healthcare platform of proactive wellness management.

Another object of this invention is to provide a system and method comprising a wellness index covering the entire spectrum of wellness continuum from health assessment, risk assessment to incorporating preventive and "healthy" attributes and behavior calculation.

Another object of this invention is to provide a system and method that serves as an independent screening and diagnosis system to a treatment and counseling program.

Another object of this invention is to provide a system and method comprising an Index for reducing the entire Individual/Patient assessment modalities into only three super-categories.
Yet another object of this invention is to provide an intuitive wellness system and protocol, enabling wellness and health care managers, create a sequence of interactions tailored to generate the highest response and positive behavioral changes for those Individuals.

Yet another object of this invention is to provide wellness index enhancing the effectiveness and efficiency of efforts targeted towards the administration and management of the wellness programme.

Yet another object of this invention is to provide a system and method to perform measurement and relative comparison to different wellness states.

Yet another object of this invention is to utilize the wellness measurement towards improvement of the individual wellness state by the individual or third party.

Yet another object of this invention is to promote the importance of wellness and impact in reducing the illnesses and rising healthcare costs.

**SUMMARY OF THE INVENTION:**

The present invention is directed to system and methods of operation that are further described in the following Brief Description of the Drawings, the Detailed Description of the Invention, and the claims. Other features and advantages of the present invention will become apparent from the following detailed description of the invention made with reference to the accompanying drawings.

The principal aspects of the invention is to provide a method for summarization of a wellness of a person, characterized by a personalized holistic and parametric analysis of the wellness, an interface configured to intuitively capture an information in ¾ plurality of wellness mapping categories comprising current health state, future health risks, and current health activities of the person, the method comprising computer implemented steps of:
creating a hierarchical wellness tree for the each wellness mapping category and identifying at least one primary sub category for the each wellness mapping category; identifying and establishing insertion of one or more sub categories in a disparate levels occurring in the plurality of disparate wellness mapping category and primary sub categories; calibrating an each subsequent sub category to the each primary category to generate a value in response to the input; measuring an each sub category in the wellness tree using at least one clinically/pathologically/psychologically established method; assigning a predetermined weight to the each sub-categories in the wellness tree; validating the each input and identifying a conflict associated therewith the said input and one or more previous sub categories in the said hierarchical tree; aggregating the weighted scores of the each subcategories associated with the each primary subcategory and evaluating a primary category score for the each wellness mapping category; integrating the scores value of the each primary category to generate an integrated score for each wellness mapping category; calibrating the score of each wellness mapping category to suggest at least one wellness indicator of the person; and rendering the current wellness index of the person on a device.

Another aspect of the invention is provide a wellness index determination and wellness summarization system, characterized by holistic and parametric analysis of a person, comprises a current health state module (101), a future health risks module (103) and a current health activities module (105) for measuring current health state, future health risks, and current health activities of the person, the said system comprising: an input module (10). adapted to progressively receive a plurality of set of user inputs comprising current health state, future health risks, and current health activities of the person, each set being independent of the other set(s); a post-processing module (15) adapted to convert each user input into an equivalent numerical value; a construction module (20) configured to build a hierarchical wellness tree, in accordance with the user inputs based on general/clinical/pathological/psychological assessments, the wellness comprising a plurality of primary wellness category semantically linked with a hierarchically arranged one or more sub categories; a calibrating module (30) configured to calibrate a relative value of each sub
category linked to the each primary category; an assigning module (40) for assigning a predetermined weight to the each sub-categories and added till wellness mapping category in the wellness tree.

In one of the embodiment of the present application, the system is alternatively configured to adaptively assign the weight to each sub-category in accordance with a purpose, users' intention and target population. An integrating module (50) configured to aggregate the weighted scores of the each subcategories associated with the each primary category and evaluating a primary category score for each wellness mapping category.

Yet another aspect of the invention is to provide a holistic framework for measuring individual wellness and further makes individual aware of different factors impacting wellness and educate him towards maintaining the wellness.

Yet another aspect of the invention is to provide a holistic framework to utilize the wellness measurement towards improvement of the individual wellness state by the individual or third party (such as a health insurance payer or health services provider or government) and promote the importance of wellness and its impact in reducing the illnesses and rising healthcare costs.

Yet another aspect of the invention is to provide a current health state index that is inversely proportional to future health risks index and dependant a person is following the right path towards being well. The invention further comprises an activities index which will reflect the efforts person is putting to remain well and may vary based on the objectives of the wellness management. The present invention further relates to the overall Individual Wellness Index and corresponding wellness assessment report and messages which includes the combination of all the three indexes. Such reports shall contain one or more qualitative messages provided based on the value of the indexes, which would provide user with advanced insight about the derived index.
BRIEF DESCRIPTION OF THE DRAWINGS

There are shown in the drawings, embodiments which are presently preferred. It is expressly noted, however, that the invention is not limited to the precise arrangements and instrumentalities shown.

FIG. 1 is flowchart of exemplary steps in a method for measuring wellness index, according yet another embodiment of the invention.

FIG. 2 is a schematic view of a system for wellness index determination, according to one embodiment of the invention.

FIG. 3 is a schematic view of wellness index determination (Wellness Categories), according to one embodiment of the invention.

FIG. 4 is a schematic view of Current Health State, according to one embodiment of the invention.

FIG. 5 is a schematic view of Future Health Risks, according to one embodiment of the invention.

FIG. 6 is a schematic view of Current Health Activities, according to one embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

Some embodiments of this invention, illustrating its features, will now be discussed in detail. The words "comprising," "having," "containing," and "including," and other forms thereof, are intended to be equivalent in meaning and be open ended in that an item or items following any one of these words is not meant to be an exhaustive listing of such item or items, or meant to be limited to only the listed item or items. The disclosed embodiments are merely exemplary of the invention, which may be embodied in various forms. The words
"individual" and "person" are synonymous and interchangeable.

The present invention provides a computer-implemented system and method for measuring wellness index of individual's health covering all aspects of health and wellness parameters.

According to one of the exemplary embodiment of the invention, using an intuitive wellness system and protocol which enables Wellness and Health care managers, creates a sequence of interactions tailored to generate the highest response and positive behavioral changes for those Individuals.

FIG. 1 is flowchart of exemplary steps in a method for measuring wellness index, according to various embodiment of the invention. For a precise and consolidated wellness determination a user health information is categories to create a correlative wellness map. Accordingly, in an initial step 200 of the present invention the user health information is captured by defining a Wellness Mapping Categories as Current Health State, Future Health Risks and Current Health Activities. In a next step 201 a hierarchical wellness tree is created for the each wellness mapping category and identifying at least one primary sub category for the each wellness mapping category. After creating hierarchical wellness tree, in a next step 203 identifying and establishing insertion of one or more sub categories in a disparate levels occurring in the plurality of disparate wellness mapping category and primary sub categories. In a next step 205 in response to the input, calibrate an each subsequent sub category to the each primary category to generate a value.

In next step 207 measuring an each sub category in the wellness tree using at least one clinically/pathologically/psychologically established method.

In a next step 209 a predetermined weight is assigned to the each sub-category in the wellness tree. In one of the embodiment of the present application, the system is alternatively configured to adaptively assign the weight to each sub-category in accordance
with a purpose, users' intention and target population. In a next step 211 validating the each input and identifying a conflict associated therewith the said input and one or more previous sub categories in the said hierarchical tree. In a next step 213 aggregating the weighted scores of the each subcategories associated with the each primary subcategory and evaluating a primary category score for the each wellness mapping category. In a next step 215 integrate the scores value of the each primary category to generate an integrated score for each wellness mapping category. In a next step 217 calibrate the score of each wellness mapping category to suggest at least one wellness indicator of the person. In a final step 219 renders the current wellness index of the person on a device.

A wellness index determination and wellness summarization system, characterized by holistic and parametric analysis of a person, comprises a current health state module (101), a future health risks module (103) and a current health activities module (105) for measuring a current health state (301), a future health risks (303), and a current health activities (305) of the person, the said system comprising: an input module (10) adapted to progressively receive a plurality of set of user inputs comprising the current health state (301), the future health risks (303), and the current health activities (305) of the person, each set being independent of the other set(s); a post-processing module (15) adapted to convert each user input into an equivalent numerical value; a construction module (20) configured to build a hierarchical wellness tree, in accordance with the user inputs based on general/clinical/pathological/psychological assessments, the wellness comprising a plurality of primary wellness category semantically linked with a hierarchically arranged one or more sub categories; a calibrating module (30) configured to calibrate a relative value of each sub category linked to the each primary category; an assigning module (40) for assigning a predetermined weight to the each sub-categories and added till wellness mapping category in the wellness tree.

In one of the embodiment of the present application, the system is alternatively configured to adaptively assign the weight to each sub-category in accordance with a purpose, users'
intention and target population. An integrating module (50) configured to aggregate the weighted scores of the each subcategory associated with the each primary category and evaluating a primary category score for each wellness mapping category.

Figure. 2 is a schematic view of a system for wellness index determination, according to one embodiment of the invention.

The present invention provides a wellness index determination system (100) for measuring wellness index for holistic and parametric analysis of the person comprising a current health state input module (101), a future health risks input module (103) and a current health activity input module (105) for measuring the current health state (301), the future health risks (303), and the current health activities (305) of the person.

The system (100) further comprises an input module (10), a post processing module (15), a constructing module (20), a calibrating module (30), an assigning module (40) and an integrating module (50).

The said input module (10) is adapted to progressively receive a plurality of set of user inputs comprising the current health state (301), the future health risks (303), and the current health activities (305) of the person, each set being independent of the other set(s). The input module (10) is adapted to receive inputs in numeric value and natural language.

In an embodiment of the present invention, the current health state input module (101), the future health risks input module (103) and the current health activity input module (105) is adapted to accept input from the user in form of the test results. The modules (101), (105) and (106) accept input from the user in form of test results. The said user is not restricted to an individual. The user can be the clinician or pathologist etc.

In an embodiment of the invention the post processing module (15) is adapted to convert
each user input into an equivalent numerical value. The construction module (20) is configured to build a hierarchical wellness tree, in accordance with the user input based on general/clinical/pathological/psychological assessments, the wellness comprising a plurality of primary wellness categories semantically linked with a hierarchically arranged one or more subcategories.

The wellness summarization system (100) is providing intuitive correlation between the mapping categories comprising the current health state (301), the future health risks (303), and the current health activities (305) of the person for maintaining a target wellness index.

The wellness summarization system (100) is further configured to prescribe one or more suggestive steps which the object person can take to increase the score of the current health activities (305) and simulate an impact of variation in the current health activities (305) score onto the future health risks (303).

In an embodiment of the invention the calibrating module (30) is configured to calibrate a relative value of each subcategory linked to the each primary category. The assigning module (40) is configured for adaptively assigning a weight or a assigning a predetermined weight to the each subcategory and added till wellness mapping category in the wellness tree.

The integrating module (50) configured to aggregate the weighted scores of the each subcategory associated with the each primary category and evaluating a primary category scores for each wellness mapping category.

FIG. 3 is a schematic view of wellness index determination (Wellness Categories), according to one embodiment of the invention.

In an embodiment of the invention, a Wellness Index (300) covers the entire spectrum of
Wellness Continuum from health assessment, risk assessment to preventive and "healthy" attributes and behavior calculation; encompassing a boundary around the subject giving it entirety and completeness as a standalone. It also serves as an independent screening and diagnosis system to a treatment and counseling system.

In an embodiment of the invention, the Wellness Index (300) reduces the entire Individual/Patient assessment modalities into three and prominent super-categories, which are so formed to extract relevant information for determination of wellness. Through the information gathered in each category, the Index is derived to clearly exhibits itself as depicting unique Wellness of the individual contrary to a generally available statistical definition of Wellness which explains "what" at a very high level but stops short of "how" when derived through the existing systems.

In an embodiment of the invention, a wellness index (300) of an individual can be effectively measured using the computer-implemented method of the present invention wherein the said computer-implemented method incorporates the measurement of the wellness index (300) of an individual based on the measurements of the following indices:

i. the current health state (301)

ii. the future health risks (303)

iii. the current health activities (305)

In a preferred embodiment of the present invention, the overall wellness index (300) of an individual is depicted by combination of all the three indices (301), (303) and (305) mentioned above.

FIG. 4 is a schematic view of Current Health State, according to one embodiment of the invention.

In a preferred embodiment of the present invention, measurement of the current health state
(301) index provides the view on the current health state of an individual.

According to one of the exemplary embodiments of the invention, the current health state (301) provides basics building blocks of a person's current health in current time when it is subjected to a clinical and psychometric analysis through various well established scientific means. The Current Health State (301) is adapted to promote and facilitate optimal mental health, which is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

According to one of the exemplary embodiment of the invention, the measurement of the current health state (301) is dynamic and is supposed to change over time based on the activities and events that happen related to person's health.

In an embodiment of the invention, the current health state (301) is categorized as but not restricted to:

a. Trauma / Acute Illness
b. Fitness
c. Allergies
d. Associated Symptoms / Conditions

In an embodiment of the invention, the trauma / acute Illness are adapted of short duration but with greater morbidity propensity. They may be minor or they may be serious. Minor acute illnesses include some of the commonest problems presented in general practice, such as upper respiratory tract infections, skin rashes or major fractures following trauma. Other major acute illnesses may present as an acute exacerbation of an underlying chronic illness, such as a myocardial infarction or diabetic coma, or the sudden onset of a previously undiagnosed condition, such as epilepsy or stroke or an acute emotional or psychological problem. The trauma / acute Illness can be classified as acute minor illness (self-limiting),
acute major illness (self-limiting or requiring treatment), acute presentation of existing major illness (acute exacerbation) and acute presentation of new chronic illness. Such body state has a great preponderance of affecting the overall Wellness and requires to be assessed for any intervention to be planned effectively.

According to one of the exemplary embodiments of the invention, the fitness is a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations. According to exemplary embodiment of the invention the fitness is further categories disability, general fitness and metal fitness.

According to one of the exemplary embodiments of the invention, the allergy is a hypersensitivity disorder of the immune system. The allergic reactions occur when a person's immune system reacts to normally harmless substances in the environment. The allergy can be further categorized as seasonal allergies and permanent allergies. The mild allergies are like hay fever are very common in the human population and cause symptoms such as red eyes, itchiness, and runny nose, eczema, hives, hay fever, or an asthma attack. Allergies can play a major role in conditions such as asthma.

According to one of the exemplary embodiments of the invention, the associated symptoms / conditions in an individual while assessing wellness may present with essential red flags presented in someone who is not necessarily acutely, seriously ill, but are indicative of a potentially seriously underlying problem that mandates speedy investigation and/ or management. The associated symptoms / conditions further categories as linked to injury / disease and medical assessment.

The current health state (301) boundary of the wellness index (300) achieves a snapshot of physical Wellness and gives "current" state and helps to take the next step to assess the "Future Health Risks" (303) of an Individual being assesses for Wellness.
FIG. 5 is a schematic view of Future Health Risks, according to one embodiment of the invention.

In an embodiment of the invention, the Wellness index (300) adapted to use standardized PRO (Patient Reported Outcomes) formats and scientifically accepted assessment methods to derive and classify an Individual's Wellness state as per his assessed "future health risk" (303). The future health risks (303) can be further categorized to-

a) due to existing health state
b) due to socio-economic work environment.

The future health risks (303) depend on the condition of existing health state. The factors considered are age factor (adult age group), life style, future disease risk due to current health and family environment. The future health risks (303) further depend on the condition of socio-economic work environment. The factors considered are potential future disease, habits and work environment.

In another preferred embodiment of the present invention, measurement of the future health risks (303) index provides the view on the future health risks (303) of the individual. Further, measurement of the future health risks (303) provides an insight to health risks which are due to the existing health state, conditions that an individual cannot control (e.g. family health history) and other socio-economic-environment factors (e.g. occupation, home, work and social environment).

FIG. 6 is a schematic view of Current Health Activities, according to one embodiment of the invention.

According to one of the exemplary embodiment of the invention, The current health activities (305) section of the wellness index (300) considers "holistic" way of living as
essential to optimum physical and mental health and calculates parameters such as diets, habits (emotional/social), recreation and thoughts to bring out a well balanced score in order to place an individual into a specific risk category or out of it. The current health activities (305) further categories as:
   a) Intake
   b) Recreation
   c) Habits
   d) Thoughts

The body requires good nutrition, appropriate weight, beneficial exercise, adequate rest and proper stress management. The mind needs self-supportive attitudes, positive thoughts and viewpoints and a positive self-image. One also needs to give and receive forgiveness, love and compassion; one needs to laugh and experience happiness and joyful relationships with self and others. The social aspects require inner calmness, openness to creativity, and trust in inner knowing with a great degree of adaptability.

In another preferred embodiment of the present invention, measurement of the current health activities (305) index provides an insight to various activities that an individual is doing towards being well and maintain wellness. The current health activities (305) include monitoring the intake of right diet as well as required medications, habits, physical and mental activities towards being well and maintain wellness.

A wellness summarization system (100), wherein the future health risk (305) comprises of a plurality of general, pathological, physiological and psychological diagnostic elements, each diagnostic element is captured for its current state and progressively expanded to arrive at the future health risk (305).

Further, if a person is following the right path towards being well, the current health state
(301) index would go up and the future health risks (303) index would go down. The activities index will reflect the efforts that a person is putting to remain well and may vary based on the objectives of the wellness management.

Further, these measurements are used to compare the different wellness states and further reduce the illness and rising healthcare costs by providing strategies to maintain wellness of an individual.

Further, wellness of an individual is managed by looking at the holistic perspective of an individual's health and the factors impacting the health.

According to another embodiment of the present invention, the system and method of the present invention also provides information on health focus areas for an individual to the individual himself or to the third party such as health insurance payer or health services provider or government.

The preceding description has been presented with reference to various embodiments of the invention. Persons skilled in the art and technology to which this invention pertains will appreciate that alterations and changes in the described process and methods of operation can be practiced without meaningfully departing from the principle, spirit and scope of this invention.

A WORKING EXAMPLE OF THE SYSTEM:

Example 1

Considering the system of the present application, we create a subset of the primary sub-categories and next level sub-categories to construct a miniature version of the Wellness Index measurement system under the wellness mapping categories of "Current Health
State" (301), "Future Health Risks" (303) and "Current Health Activities" (305).

This is for illustration only and the actual index can only be measured when all the primary sub-categories are taken into consideration. In this set, we have selected few sub-categories to explain the miniature system.

Following Table A summarizes the primary category and next level sub-categories for each of the three wellness mapping categories. In this set, few sub-categories are selected to explain the miniature system. The idea is to convincingly demonstrate the use of categories to arrive at Index. Inclusion of few categories does not explain the entire Index but is suffices the demonstration purpose.

<table>
<thead>
<tr>
<th>Primary Sub-Category</th>
<th>Representative Next Level Sub-Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Health State</strong></td>
<td></td>
</tr>
<tr>
<td>Trauma / Acute Illness</td>
<td>Acute Illness</td>
</tr>
<tr>
<td></td>
<td>Current Morbidity/discomfort associated with Acute Illness or Trauma</td>
</tr>
<tr>
<td><strong>Fitness</strong></td>
<td></td>
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<tr>
<td></td>
<td>Disability</td>
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<tr>
<td></td>
<td><strong>General Fitness</strong></td>
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<td></td>
<td><strong>Mental Fitness</strong></td>
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<td><strong>Allergies</strong></td>
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<td></td>
<td>Seasonal</td>
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<td></td>
<td>Permanent</td>
</tr>
<tr>
<td><strong>Associated Conditions</strong></td>
<td></td>
</tr>
<tr>
<td>Symptoms / Linked to injury/disease</td>
<td></td>
</tr>
<tr>
<td>Others' conditions</td>
<td></td>
</tr>
<tr>
<td>Medical Assessment</td>
<td></td>
</tr>
<tr>
<td><strong>Future Health Risks</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Due to Existing Health State</strong></td>
<td>Age Factor (adult age groups)</td>
</tr>
<tr>
<td></td>
<td><em>Life Style (physical activity/ occupation / age /)</em></td>
</tr>
<tr>
<td></td>
<td><em>Future Diseases Risk due to current Health Conditions</em></td>
</tr>
<tr>
<td></td>
<td>Family Environment</td>
</tr>
<tr>
<td>Due to Socio-economic-work environment</td>
<td>Modifiable Risks</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Potential Future Diseases (Occupational Hazard, Lifestyle, Diet and Lifestyle mismatch)</td>
<td></td>
</tr>
<tr>
<td>Habits (Addictions, Compulsive Behaviours, Social Learning)</td>
<td></td>
</tr>
<tr>
<td>Work Environment</td>
<td></td>
</tr>
<tr>
<td>Modifiable Risks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Health Activities</th>
<th>Diet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medications</td>
<td></td>
</tr>
</tbody>
</table>

**Intake**

<table>
<thead>
<tr>
<th>Recreation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Movement</td>
<td></td>
</tr>
<tr>
<td>Body Rest</td>
<td></td>
</tr>
<tr>
<td>Limb(s) Power and Joint mobility</td>
<td></td>
</tr>
</tbody>
</table>

**Habits**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat</td>
</tr>
<tr>
<td>Sleep</td>
</tr>
<tr>
<td>Work</td>
</tr>
<tr>
<td>Play</td>
</tr>
<tr>
<td>Discipline</td>
</tr>
</tbody>
</table>

**Thoughts**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence</td>
</tr>
<tr>
<td>Ego / Self-Esteem</td>
</tr>
<tr>
<td>Desires</td>
</tr>
<tr>
<td>Reactions</td>
</tr>
</tbody>
</table>

Table A

Following Table B, Table C and Table D describe the details of the system for each of the wellness mapping categories, sample weightages for the selected sub-categories, representative options for these sub-categories as well as example values for these sub-categories along with the representative assessment method is based upon medically and scientifically established methods.

1) Current Health State (301)
<table>
<thead>
<tr>
<th>Primary Sub-category</th>
<th>Example Weightage</th>
<th>Sub-Categories</th>
<th>Representative Options for each Sub-category</th>
<th>Example Values for each Sub-category</th>
<th>Example Weightage</th>
<th>Representative Assessment Method based on Industry established method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness</td>
<td>100%</td>
<td>Physical Fitness</td>
<td>Unfit for his/her age range</td>
<td>30</td>
<td>60%</td>
<td>PRO (SF-36)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Partially Unfit for his/her age range</td>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fit for his/her age range</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Fitness</td>
<td></td>
<td></td>
<td>Severe Depression-requiring institutional therapy</td>
<td>25</td>
<td>40%</td>
<td>PRO (PHQ-9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mild to Moderate Depression-requires counseling + Drug</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Borderline Depression-requires counseling</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mentally Sound-No Depressive State</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table B

2) Future Health Risks (303)
Due to Existing Health State 100% Life Style 30% History (Medical Proforma)

<table>
<thead>
<tr>
<th>Future Diseases Risk due to current Health Conditions</th>
<th>70%</th>
<th>History (Medical Proforma)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No known Risks identified</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Moderate Risks identified</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Gross Risks identified</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Table C

3) Current Health Activities (305)

<table>
<thead>
<tr>
<th>Primary Sub-category</th>
<th>Example Weightage</th>
<th>Sub-Categories</th>
<th>Representative Options for each Sub-category</th>
<th>Example Values for each sub-category</th>
<th>Example Weightage</th>
<th>Representative Assessment Method based on Industry established method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake</td>
<td>100%</td>
<td>Diet</td>
<td>Perfect diet suiting age and health</td>
<td>100</td>
<td></td>
<td>Clinical Nutrition Assessment (by therapeutic nutritionist)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Moderate diet suiting age and health</td>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Poor diet suiting age and health</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medications</td>
<td></td>
<td></td>
<td>Takes medication regularly as prescribed</td>
<td>100</td>
<td>70</td>
<td>History (Medical Proforma)</td>
</tr>
</tbody>
</table>
Takes medication but not regularly 50
Does not take any medications despite poor health conditions 20

Table D

A predetermined weight is applied to the each primary sub-categories and next level sub-categories. It is used here only for the benefit of simplicity and to explain the wellness measurement system. These can be modified or used per any specification as deemed medically necessary or scientifically appropriate by any organization or individual who proposes to make an industrial use of the proposed wellness index.

Consider four individuals whose wellness index are to be measured using the system. In Table E, the sample assessment of these four individuals for each of the primary and next level sub-categories is provided. These assessments will be used to measure the wellness index.
Consider the assessment of the options and the auto calculation of the scores below for each of the wellness mapping categories. The table F, table G, and table H below (along with the analysis) describe the overall score of each wellness mapping category namely current health state (301), future health risks (303) and current health activities (305). Note that this score is as per the selected sub-categories for the miniature wellness measurement system and not for the entire system.

Note that the simple calculation has been used to describe the system concept, whereas the actual wellness index calculation shall include all the suggested sub-categories and more as applicable, the weights and scores assigned to each option and overall score is calculated via complex computational methods including but not limiting to statistical methods.

1) Current Health State (301)
Table F

As it is clear from the above table, the overall score for the "Current Health State" which only includes a primary sub-category "Fitness" varies from 100 to 66 based on different assessment of two sub-categories of "Fitness" primary sub-category. This procedure can be repeated for multiple primary sub-categories and corresponding sub-categories.

2) Future Health Risks (303)

Table G

As it is clear from the above table, the overall score for the "Future Health Risks" which only includes a primary sub-category "Due to Existing Health State" varies from 100 to 32.5 based on different assessment of two sub-categories of "Due to Existing Health State". This procedure can be repeated for multiple primary sub-categories and corresponding sub-categories.

3) Current Health Activities (305)
<table>
<thead>
<tr>
<th>Sub-categories</th>
<th>Weightages</th>
<th>Score of individual 1</th>
<th>Score of individual 2</th>
<th>Score of Individual 3</th>
<th>Score of Individual 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet</td>
<td>30%</td>
<td>100</td>
<td>40</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td>Medications</td>
<td>70%</td>
<td>100</td>
<td>100</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Overall Score</td>
<td></td>
<td>100</td>
<td>82</td>
<td>65</td>
<td>47</td>
</tr>
</tbody>
</table>

Table H

It is clear from the above table H, the overall score for the "Current Health Activities" which only includes a primary sub-category "Intake" varies from 100 to 47 based on different assessment of two sub-categories of "Intake". This procedure can be repeated for multiple primary sub-categories and corresponding sub-categories.

Now combining all of the above information (shown in table H') to arrive at the wellness index score for this representative miniature wellness system having limited primary & next level sub-categories:

<table>
<thead>
<tr>
<th>Wellness Mapping Categories</th>
<th>Individual 1</th>
<th>Individual 2</th>
<th>Individual 3</th>
<th>Individual 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Health State</td>
<td>100</td>
<td>76</td>
<td>90</td>
<td>66</td>
</tr>
<tr>
<td>Future Health Risks</td>
<td>100</td>
<td>85</td>
<td>47.5</td>
<td>32.5</td>
</tr>
<tr>
<td>Current Health Activities</td>
<td>100</td>
<td>82</td>
<td>65</td>
<td>47</td>
</tr>
<tr>
<td><strong>Representative Wellness Index</strong></td>
<td><strong>100-100-100</strong></td>
<td><strong>76-85-82</strong></td>
<td><strong>90-47.5-65</strong></td>
<td><strong>66-32.5-47</strong></td>
</tr>
</tbody>
</table>

Table H'

We are not providing the corresponding messages and report for this wellness index because by looking at the assessment of the sample individual it is obvious that where they are lacking in the assessment and how their scores are determined.

**Example 2:**

Consider another example of Wellness Index system for an adult male, 34 years of age,
working as a truck driver, with strong family history of Diabetes Mellitus disease, Hypertension disease and current history of daily alcohol intake (180ml/day) and cigarette smoking (15/day).

On examination, he is found to have raised blood pressure, impaired fasting blood glucose level, a raised BMI and faulty diet (mostly road-side cooked food, high in sodium, deep fried and low in fiber). He drives six days in a week and mostly takes intercity loads to carry. He drives day time and makes it home every Saturday to spend Sunday with his family. No high-risk behavior pertaining to sexual practices found. He regularly takes medication for blood pressure and has recently undergone a preventive health check-up as mandated by his employer and his health insurance.

He was advised to keep his blood pressure and high fasting sugar in check. He was also investigated for cardiac and other risk factors. No imminent risk factors identified except for strong family history for Diabetes Mellitus and Hypertension. Both his parents died of Cardiac diseases. His Kidney and Liver function tests are within normal limits though the ultra-sonographic examination showed mild fatty changes in the Liver. His Lipid profile is slightly de-arranged with border line raised Serum LDL levels.

He has been advised to find time to incorporate a healthy life style (diet and activities), take his medicines for blood pressure regularly and to go for a 45 minute brisk walk at least three to four times in a week. He has yet not been started on any hypoglycemic agent for his raised blood sugar. He has been asked to monitor his blood sugar level regularly and come for follow-up as advised.

The system entails, through detailed interaction and assessment with subject following:

An input module (10) is adapted to progressively receive a plurality of set of user inputs comprising current health state (301), future health risks (303), and current health activities (305) of the person; as illustrated by table I, table J and table K.
Note that in this system, though we have taken all primary sub-categories, we are restricting the next level sub-categories to few selected sub-categories to explain the system. Subcategories are not restricted to what are illustrated in example given, although there can be multiple subcategories depending on the subject, user and target population as well as intention.

**Current Health State (301)**

<table>
<thead>
<tr>
<th>Primary Sub-category</th>
<th>Next Level Sub-categories</th>
<th>Representative Assessment Method based on Industry Established Method</th>
<th>Illustrative Assessment of the individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trauma / Acute Illness</td>
<td>Acute Illness / Trauma</td>
<td>History (Medical Performa)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Current Morbidity/discomfort associated with Acute Illness or Trauma</td>
<td>History (Medical Performa)</td>
<td>Ambulatory (All Good)</td>
</tr>
<tr>
<td>Fitness</td>
<td>Disability</td>
<td>PRO (HRQoL), (SF-36)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>General Fitness</td>
<td>PRO (SF-36)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mental Fitness</td>
<td>PRO (PHQ-9)</td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td>Seasonal</td>
<td>History (Medical Performa)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Permanent</td>
<td>History (Medical Performa)</td>
<td>None</td>
</tr>
<tr>
<td>Associated Symptoms / Conditions</td>
<td>Linked to injury/disease</td>
<td>History (Medical Performa)</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Others conditions</td>
<td>History (Medical Performa)</td>
<td>None</td>
</tr>
</tbody>
</table>
The Values being thrown by the current health state (301) give a "wellness" score to the subject. Each set being independent of the other set(s); a post-processing module (15) adapted to convert each user input into an equivalent numerical value; a construction module (20) configured to build a hierarchical wellness tree, in accordance with the user inputs based on general/clinical/pathological/psychological assessments, the wellness comprising a plurality of primary wellness category semantically linked with a hierarchically arranged one or more sub categories;

**Future Health Risk (303)**

<table>
<thead>
<tr>
<th>Primary Sub-category</th>
<th>Next Level Sub-categories</th>
<th>Representative Assessment Method based on</th>
<th>Illustrative Assessment of the individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to Existing Health State</td>
<td>Age Factor (adult age groups)</td>
<td>History (Medical Performa)</td>
<td>30-49 Age Group</td>
</tr>
<tr>
<td>Life Style (physical activity/occupation/age)</td>
<td>History (Medical Performa)</td>
<td>Moderately Active</td>
<td></td>
</tr>
<tr>
<td>Future Diseases Risk due to current Health Conditions</td>
<td>History (Medical Performa)</td>
<td>Moderate Risks Identified</td>
<td></td>
</tr>
<tr>
<td>Family Environment</td>
<td>Patient Reported (History /PRO)</td>
<td>Conducive Environment</td>
<td></td>
</tr>
<tr>
<td>Modifiable Risks</td>
<td>Clinical Assessment by a Physician</td>
<td>All risks Moderately Modifiable</td>
<td></td>
</tr>
<tr>
<td>Due to Socio-economic work environment</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Potential Future Diseases | History (Medical Performa) | Occupations corresponding to indirect possible health hazard
Occupational Hazard | History (Medical Performa) | Lifestyle corresponding to direct possible health hazard
Lifestyle | History (Medical Performa) | Habit
Habits | History (Medical Performa) | Addictions with known morbidity associated
Addictions | History (Medical Performa) | No Compulsive Behaviours
Compulsive Behaviours | History (Medical Performa) | Normal Milestones
Social Learning | History (Medical Performa) | Psychologist Assessed (aided by History (Medical Performa))
Work Environment | Clinical Assessment by a Physician | All risks Moderately Modifiable
Modifiable Risks
Table J

The current health state (301) and future risk analysis of the subject puts the subject in identified as propensity of having moderate risk of developing chronic illness and as well as clearly identifies some of those risks being modifiable. The addition of "current health activities" (301) further analyzes the wellness profile of the subject so as to pinpoint to presence or absence of proof of such lifestyle adoptions that can show a progressive or regressive movement towards Wellness and help design interventions customized to one's social, socio-economical and clinical profile.

(10) Current Health Activities (305)
<table>
<thead>
<tr>
<th>Diet</th>
<th>Clinical Nutrition Assessment (by therapeutic nutritionist)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>24 hour Dietary Recall</td>
<td>Dietary recall matches RDA of calories per age and lifestyle</td>
<td></td>
</tr>
<tr>
<td>Social Diet Factor Score</td>
<td>Clinical Nutrition Assessment (by therapeutic nutritionist)</td>
<td>Matches inappropriate for region and local conditions</td>
</tr>
<tr>
<td></td>
<td>Clinical Nutrition Assessment (by therapeutic nutritionist)</td>
<td>Intake not as per prescribed healthy way of food intake (mastication)</td>
</tr>
<tr>
<td>Medications</td>
<td>History (Medical Performa)</td>
<td></td>
</tr>
<tr>
<td>Medications with Known good effects (generally promoting health)</td>
<td>Subject takes no Wellness promoting medications</td>
<td></td>
</tr>
<tr>
<td>Medications with Known adverse effects (individualized)</td>
<td>Subject takes no medications with Known adverse effects</td>
<td></td>
</tr>
<tr>
<td>Medications for specific conditions</td>
<td>Subject has known Health conditions and takes medications regularly</td>
<td></td>
</tr>
<tr>
<td>Recreation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Movement</td>
<td>Less Activity for Lifestyle &amp; Age (aerobic and joint mobility group)</td>
<td></td>
</tr>
<tr>
<td>Body Rest</td>
<td>Clinical Assessment by a Physician</td>
<td>Sleeps and Relaxes (reads, watches TV) normally for age and Lifestyle</td>
</tr>
</tbody>
</table>
The illustrative integrating module (50), as shown in table L and table M, is configured to aggregate the weighted scores of each sub-category associated with each primary category and evaluating a primary category score for each wellness mapping category. In

<table>
<thead>
<tr>
<th>Habits</th>
<th>Limb(s) Power and Joint mobility</th>
<th>5/5 power state and unrestrictive mobility in both limbs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clinical Assessment by a Physician</td>
<td>Rating out of 5</td>
</tr>
<tr>
<td>Eat</td>
<td>Clinical Nutrition Assessment (by therapeutic nutritionist)</td>
<td>2</td>
</tr>
<tr>
<td>Sleep</td>
<td>PRO (Epworth Sleepiness Scale)</td>
<td>2</td>
</tr>
<tr>
<td>Work</td>
<td>PRO (Wellness Inventory Questionnaire Score)</td>
<td>5</td>
</tr>
<tr>
<td>Play</td>
<td>PRO (Wellness Inventory Questionnaire Score)</td>
<td>3</td>
</tr>
<tr>
<td>Discipline</td>
<td>Physician/Psychological Assessment</td>
<td>5</td>
</tr>
<tr>
<td>Thoughts</td>
<td>Intelligence</td>
<td>PRO (Wechsler Adult Intelligence Scale: Verbal Comprehension Index (VCI), Perceptual Reasoning Index (PRI), Working Memory Index (WMI), processing Speed Index (PSI))</td>
</tr>
<tr>
<td>Ego / Self-Esteem</td>
<td>PRO (Rosenberg self-esteem scale)/Psychological Assessment</td>
<td>5</td>
</tr>
<tr>
<td>Desires</td>
<td>PRO (Young Schema Assessment)/Psychological Assessment</td>
<td>3</td>
</tr>
<tr>
<td>Reactions</td>
<td>Psychologist Assessed (aided by History (Medical Performa))</td>
<td>2</td>
</tr>
</tbody>
</table>

Table K
In this case, the subject shows a fairly healthy current profile for his age in spite of strongly negative family history. The integration of future health risks (303) and current health activities (305) further filters him out to show his actual wellness state.

**Individual's Wellness Index (93-56-80)**

<table>
<thead>
<tr>
<th>Current Health State</th>
<th>Future Health Risks</th>
<th>Current Health Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>56</td>
<td>80</td>
</tr>
</tbody>
</table>

Table L

The final integrated result shows that the future health risk propensity of the subject is very high, but even then because of certain healthy lifestyle the subject has followed the final "modifiable" propensity. In this particular scenario, the Wellness Index of the person shows that if he:

1. Stops Alcohol Intake or reduces it to a moderate and clinically accepted level
2. Completely stops Smoking Cigarette
3. Attends immediately to faulty diet habit
4. Starts regular physical activity as prescribed
5. Takes medicines as prescribed
6. Keeps a regular check on blood pressure and blood sugar level
7. And makes sure that he is seen by his physician for follow up as prescribed his Wellness score over a period of time could look like:

**Individual's Wellness Index (97-73-95)**

<table>
<thead>
<tr>
<th>Current Health State</th>
<th>Future Health Risks</th>
<th>Current Health Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>73</td>
<td>95</td>
</tr>
</tbody>
</table>

Table M
ADVANTAGES OF THE INVENTION;

The system and method of the proposed invention has the following advantages:

i. Provides collective system and method for measuring the overall wellness index of an individual covering all aspects of health parameters and improving or maintaining the wellness of an individual;

ii. Provides information on health focus areas for an individual to the individual himself or to the third party such as health insurance payer or health services provider or government;

iii. Provides measurements and compares the different wellness states; and

iv. Promotes importance of wellness and reduces illnesses and rising healthcare costs by providing strategies to proactively maintain wellness of an individual.
We Claim:

1. A method for summarization of a wellness of an object person, characterized by a personalized holistic and parametric analysis of the wellness, an interface intuitively capturing an information in a plurality of wellness mapping categories comprising current health state, future health risks, and current health activities of the person, the method comprising computer implemented steps of:
   creating a hierarchical wellness tree for the each wellness mapping category and identifying at least one primary sub category for the each wellness mapping category;
   identifying and establishing insertion of one or more sub categories in a disparate levels occurring in the plurality of disparate wellness mapping category and primary sub categories;
   calibrating an each subsequent sub category to the each primary category to generate a value in response to the input;
   measuring an each sub category in the wellness tree using at least one clinically/pathologically/psychologically established method;
   assigning adaptively a predetermined weight to the each sub-categories in the wellness tree;
   validating the each input and identifying a conflict associated therewith the said input and one or more previous sub categories in the said hierarchical tree;
   aggregating the weighted scores of the each subcategories associated with the each primary subcategory and evaluating a primary category score for the each wellness mapping category;
   integrating the scores value of the each primary category to generate an integrated score for each wellness mapping category;
   calibrating the score of each wellness mapping category to suggest at least one wellness indicator of the person; and
   rendering the current wellness index of the person and a consolidated wellness report on a device.
2. The wellness summarization method of claim 1, wherein the wellness summarization process is personalized by adaptively assigning a varying order of weight to each subcategory according to a preidentified target population and purpose.

3. The wellness summarization method of claim 1, wherein the said summarized wellness is adapted to supplement a user with a precalibrated numeric index along with a reverse chronological wellness map of each related subcategories.

4. The wellness summarization method of claim 1, wherein the wellness reports comprises one or more qualitative messages based on the value of the indexes, the said qualitative messages are semantically derived from a relationship of the consolidated indexes with impacting subcategories for presenting the user with an advanced insight about the derived index.

5. The wellness summarization method of claim 1, wherein the said reverse chronological wellness map is configured to indicate an exact anomaly path comprising at least one parametrically critical input of concern in at least one subcategory.

6. The wellness summarization method of claim 1, wherein the future health risks comprises of a plurality of pathological, physiological and psychological diagnostic elements, each diagnostic element is captured for its current state and progressively expanded to arrive at the future health risk.

7. The wellness summarization method of claim 1, wherein the said current health state is categorized but not restricted to:
   a. trauma / Acute Illness
   b. fitness
c. allergies

d. associated symptoms / conditions.

8. The wellness summarization method of claim 1, wherein the said future health risk is categorized but not restricted to:
   a. due to Existing Health State
   b. due to Socio-economic-work environment.

9. The computer implemented method of claim 1, wherein the current health activities is categorized as but not restricted to:
   a. intake
   b. recreation
   c. habits
   d. thoughts

10. The wellness summarization method of claim 1, wherein the method is providing intuitive correlation between the mapping categories comprising current health state, future health risks, and current health activities of the person for maintaining a target wellness index.

11. The wellness summarization method of claim 1, wherein the method, while intuitively correlating the various mapping categories, is further configured to prescribe one or more suggestive steps which the object person can take to increase the score of current health activities and simulate an impact of variation in the current health activities score onto the future health risks and also improves the current health state over a period of time.

12. A wellness index determination and wellness summarization system, characterized
by holistic and parametric analysis of a person, comprises a current health state module (101), a future health risks module (103) and a current health activities module (105) for measuring current health state, future health risks, and current health activities of the person, the said system comprising:

an input module (10) adapted to progressively receive a plurality of set of user inputs comprising current health state, future health risks, and current health activities of the person, each set being independent of the other set(s);

a post-processing module (15) adapted to convert each user input into an equivalent numerical value;

a construction module (20) configured to build a hierarchical wellness tree, in accordance with the user inputs based on general/clinical/pathological/psychological assessments, the wellness comprising a plurality of primary wellness category semantically linked with a hierarchically arranged one or more sub categories;

a calibrating module (30) configured to calibrate a relative value of each sub category linked to the each primary category;

an assigning module (40) for assigning adaptively a predetermined weight to the each sub-categories and added till wellness mapping category in the wellness tree; and

an integrating module (50) configured to aggregate the weighted scores of the each subcategories associated with the each primary category and evaluating a primary category score for each wellness mapping category.

13. A wellness index determination and wellness summarization system of claim 12, wherein the system is adapted for personalized wellness summarization by adaptively assigning a varying order of weight to each subcategory according to a preidentified target population and purpose.

14. A wellness index determination and wellness summarization system of claim 12,
wherein the input module is adapted to receive inputs in numeric value and natural language.

15. A wellness index determination and wellness summarization system of claim 12, wherein the method is providing intuitive correlation between the mapping categories comprising current health state, future health risks, and current health activities of the person for maintaining a target wellness index.

16. A wellness index determination and wellness summarization system of claim 12, wherein the said summarized wellness is consolidated in a wellness report and one or more messages, the said report messages are further adapted to supplement a user with a precalibrated numeric index along with a reverse chronological wellness map of each related subcategories.

17. A wellness index determination and wellness summarization system of claim 16, wherein the wellness reports comprises one or more qualitative messages based on the value of the indexes, the said qualitative messages are semantically derived from a relationship of the consolidated indexes with impacting subcategories for presenting the user with an advanced insight about the derived index.

18. A wellness index determination and wellness summarization system of claim 12, wherein the method, while intuitively correlating the various mapping categories, is further configured to prescribe one or more suggestive steps which the object person can take to increase the score of current health activities and simulate an impact of variation in the current health activities score onto the future health risks and also improves the current health state over a period of time.

19. A wellness index determination and wellness summarization system of claim 12,
wherein the said current health state is categorized but not restricted to:

a. trauma / Acute Illness
b. fitness
c. allergies
d. associated Symptoms / Conditions.

20. A wellness index determination and wellness summarization system of claim 12, wherein the said future health risk is categorized but not restricted to:

a. due to Existing Health State
b. due to Socio-economic-work environment.

21. A wellness index determination and wellness summarization system of claim 12, wherein the current health activities is categorized as but not restricted to:

a. intake
b. recreation
c. habits
d. thoughts.

22. A wellness index determination and wellness summarization system of claim 12, wherein the future health risk comprises of a plurality of general, pathological, physiological and psychological diagnostic elements, each diagnostic element is captured for its current state and progressively expanded to arrive at the future health risk.
Defining Wellness Mapping Categories as Current Health State, Future Health Risks and Current Health Activities

Creating a hierarchical wellness tree for each wellness mapping category and identifying at least one primary subcategory for each wellness mapping.

Identifying and establishing insertion of one or more subcategories in a disparate levels occurring in the plurality of disparate wellness mapping category and primary subcategories.

Calibrating each subsequent subcategory to the each primary category to generate a value.

Measuring each last subcategory in the wellness tree using at least one clinically/pathologically/psychologically established method.

Assigning a predetermined weight to each subcategory prior to the last category in the wellness tree.

Validating the each input and identifying a conflict associated therewith said input and one or more previous subcategories.

Aggregating the weighted scores of each subcategory associated with each primary subcategory and evaluating a primary category score for each wellness mapping category.

Integrating the scores value of each primary category to generate an integrated score.

Calibrating the score of each wellness mapping category.

Rendering the current wellness index of the person on a device.

Figure 1
Figure 2
Figure 5

Due to Existing Health State

Age Factor (adult age groups)
Life style (physical activity/occupation/age)
Future Diseases Risk due to current Health Conditions
Family Environment

Due to Socioeconomic work environment

Potential Future Diseases
Habits
Work Environment
Figure 6
**DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT**

(PCT Article 17(2) (a), Rules 13ter.1 (c) and Rule 39)

<table>
<thead>
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<th>Applicant's or agent's file reference</th>
<th>IMPORTANT DECLARATION</th>
<th>Date of mailing (day/month/year)</th>
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<td>11 May 2012 (1-1-05-2012)</td>
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<td>International application No.</td>
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<td>31 December 2010 (31-12-2010)</td>
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International Patent Classification (IPC) or both national classification and IPC

G06F 1/00

Applicant

TATA CONSULTANCY SERVICES LIMITED

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below.

1. The subject matter of the international application relates to:
   - [x] scientific theories
   - [ ] mathematical theories
   - [ ] plant varieties
   - [ ] animal varieties
   - [ ] essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes
   - [ ] schemes, rules or methods of doing business
   - [ ] schemes, rules or methods of performing purely mental acts
   - [ ] schemes, rules or methods of playing games
   - [ ] methods for treatment of the human body by surgery or therapy
   - [ ] methods for treatment of the animal body by surgery or therapy
   - [ ] diagnostic methods practised on the human or animal body
   - [ ] mere presentations of information
   - [ ] computer programs for which this International Searching Authority is not equipped to search prior art

2. The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
   - [x] the description
   - [x] the claims
   - [ ] the drawings

3. A meaningful search could not be carried out without the sequence listing; the applicant did not, within the prescribed time limit:
   - [ ] furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
   - [ ] furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.
   - [ ] pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rule 13ter.1 (a) or (b).

4. Further comments:

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Name and mailing address of the International Searching Authority

European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31 -70) 340-2040
Fax: (+31 -70) 340-301 6

Authorized officer

SOMMERMEYER, Katrin
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Form PCT/ISA/203 (July 2009)
A meaningful search was not possible for the following reasons (Article 17(2) (a) PCT):
Claim 1 is unclear to such an extent that a meaningful search was not possible:
The term "personalized holistic and parametric analysis" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the techni cal feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 17(2) PCT.
The term "hierarchical wellness tree" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the techni cal feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 17(2) PCT.
The term "wellness mapping category" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the techni cal feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 17(2) PCT.
The phrase "calibrating an each subsequent category" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the techni cal feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 17(2) PCT.
The phrase "calibrating an each sub category" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the techni cal feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 17(2) PCT.
The phrase "measuring ... in the wellness tree" used in claim 1 is vague and unclear and leaves the reader in doubt as to the meaning of the techni cal feature to which it refers, thereby rendering the definition of the subject-matter of said claim unclear, Article 17(2) PCT.
Al together the wording of claim 1 is incomprehensible and it is not clear which techni cal problems are addressed by said claim. Also the description does not clarify to which techni cal teaching the application is directed to.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EP 0 policy when acting as an International Preliminary Examination Authority is normally not to carry out a preliminary examination on any matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the applicant proceeds into the regional phase before the EP 0, the applicant is reminded that a search may be carried out during examination on before the EP 0 (see EP 0 Guideline C-VI, 8.2), should the problems which led to the Article 17(2) declaration be overcome.