WEEKLY HEALTH REPORT SYSTEM AND METHOD THEREOF

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a weekly health report system and a method thereof; in particular, to a weekly health report system and a method thereof that periodically push health status of a measured person to other family members.

2. Description of Related Art

[0002] The prior art has not provided related technology of periodically reporting health information measured by elders in a family and related to health status of the elders or a family member requiring long-term care, and is unable to further update health status data or acquire content for training a health database. Moreover, the prior art certainly has a lack of prediction about the health status or suggestions about daily life, and additionally does not support data transmission with a smart handheld mobile device. That is to say, in the long-term medical care industry, products or related services for periodically monitoring health status of family elders, giving life suggestions, and periodically reporting information to other family members with a smart handheld mobile device has not been provided in the application field of personal handheld mobile devices (used in non-hospital grade). Therefore, it is necessary to make an improvement thereto.

SUMMARY OF THE INVENTION

[0003] The present invention discloses a weekly health report system and a method thereof. A weekly health report device is installed in each handheld

mobile device of a family group and is connected to a server via a cloud network, such that physiological information and accumulated health data measured by a measured person can be transmitted to other family members. As such, other family members can instantly know the health status of family elders or a family member requiring long-term care, and additionally a disease tendency of a sick person and life suggestions that need attention can be periodically recorded and transmitted in weeks or months, such that other family members can timely pay attention to the health status of the family.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] FIG. 1 is a schematic diagram showing connections in a system according to an embodiment of the present invention;

[0005] FIG. 2 is a schematic block diagram of circuit connection of a weekly health report device according to an embodiment of the present invention;

[0006] FIG. 3 is a schematic flowchart of a method of a weekly health report system according to an embodiment of the present invention;

[0007] FIG. 4 is a schematic diagram of a weekly health report interface actually used in an embodiment of the present invention;

[0008] FIG. 5 is a schematic diagram of another weekly health report interface actually used in an embodiment of the present invention;

[0009] FIG. 6 is a schematic diagram of still another weekly health report interface actually used in an embodiment of the present invention; and

[0010] FIG. 7 is a schematic diagram of further another weekly health report interface actually used in an embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0011] The present invention is related to a weekly health report system and a method thereof. A weekly health report device is installed in a smart handheld mobile device and is connected to a server via a cloud network or the Internet, such that physiological information and accumulated health data measured by a measured person can be transmitted to other family members. As such, other family members can instantly know the health status of family elders or a family member requiring long-term care, and additionally a disease tendency of a sick person and suggestions that need attention in daily life can be periodically recorded and transmitted.

[0012] FIG. 1 is a schematic diagram of system architecture according to an embodiment of the present invention. As shown in FIG. 1, a weekly health report system of the present invention includes at least one measuring device 10, at least one user handheld mobile device 12, a plurality of weekly health report interfaces 13, at least one group handheld mobile device 14, a server 16 and a cloud network 18. The at least one measuring device 10 is mainly used to measure physiological status of at least one measured person. In actual application, the at least one measuring device may include, but not limited to, a weight scale 10a, sphygmomanometer 10b, blood glucose meter 10c, and the like. Definitely, the present invention may also use different physiological status detection devices such as a body fat meter, pedometer, oximeter, pulse meter, and cardiopulmonary function detector in combination, which can all be applied in the measuring device 10 of the present invention. The measured person may be, but not limited to, a family elder or a sick family member who

requires long-term measurement of physiological status and requires suggestions about daily life and disease prediction.

[0013] The at least one user handheld mobile device 12 in FIG. 1 is connected to the measuring device 10 mainly in a wireless manner. Definitely, in order to match different connection manners designed for the measuring device 10 in actual application, the present invention may also use a wired manner to connect the at least one user handheld mobile device 12 and the measuring device 10. In the present invention, a user of the user handheld mobile device 12 and the measured person may be different persons. For example, the measured person is a family elder or a sick person who requires long-term measurement of physiological status, while the user of the user handheld mobile device is a nurse or a family member who takes care of the elder. Alternatively, the user of the user handheld mobile device and the measured person may also be the same one, which is not limited by the present invention. Moreover, the at least one user means that there can be two or three persons in an actual situation, because two to four caregivers may take turns to perform measurement. Therefore, the present invention makes description based on the at least one user handheld mobile device 12, but the number of the users is not limited actually.

[0014] A weekly health report device is disposed in each of the at least one user handheld mobile device 12 and the at least one group handheld mobile device 14 in the present invention. The weekly health report device disclosed in the present invention enables input of information measured and output by the measuring device 10, produces a plurality of weekly health report interfaces 13

after comparison, computation, statistics collection, and analysis for related health data, and provides the interfaces to the at least one user handheld mobile device 12 and other family members. The weekly health report device will be described in detail in FIG. 2.

[0015] The at least one user handheld mobile device 12 in FIG. 1 is connected to the cloud network 18 wirelessly, and then the cloud network 18 is further connected to the server 16 wirelessly, so as to transmit related health data received or generated by the at least one user handheld mobile device 12 or the weekly health report interfaces 13 to the server 16 via the cloud network 18 for storage. A health database 17 is disposed in the server 16, and used to store data content such as the related health data or the weekly health report interfaces 13.

[0016] In addition, the server 16 is connected to the group handheld mobile device 14 wirelessly, where the group handheld mobile device 14 includes, but not limited to, a first family member handheld mobile device 14a, a second family member handheld mobile device 14b, and even a third, fourth, and fifth family member handheld mobile device 14c (as shown in FIG. 3), which is not limited by the present invention. By the wireless connection between the server 16 and the group handheld mobile device 14, the health data of the measured person and the corresponding weekly health report interfaces 13 can be transmitted to other family members for reference, such that other family members can together care for the elder or the one who needs care, thus achieving communication and information push functions.

[0017] In an embodiment of the present invention, the server 16 can also be connected to the group handheld mobile device 14, the first family member

handheld mobile device 14a, the second family member handheld mobile device 14b, the family member handheld mobile device 14c, and the like via the cloud network 18, to push and transmit the health data and information related to the measured person to other family members for caregiving and reference.

[0018] FIG. 2 shows a weekly health report device described in the present invention. The weekly health report device includes a physiological measurement data collection module 21, a surrounding environmental data acquisition module 22, a main controller 20, a life suggestion unit 32, a disease prediction unit 31, and a family member broadcast module 40. The physiological measurement data collection module 21 is used to collect health data related to a measured person and measured by the measuring device 10. For example, after a weight scale 10a measures the weight of the measured person, and generates and outputs weight data, the physiological measurement data collection module 21 collects the weight data and transmits it to the main controller 20 for further processing. The surrounding environmental data acquisition module 22 is used to acquire environmental data or status during measurement for the at least one measured person, for example, indoor or outdoor ambient temperature at the measurement time, indoor humidity, and data measured before or after breakfast, lunch, or supper; and then transmit all the data to the main controller 20, for further comparison and analysis on the health data.

[0019] The main controller 20 is coupled to both the physiological measurement data collection module 21 and the surrounding environmental

data acquisition module 22, and used to execute reading, comparison and risk analysis for the health data of the measured person. A family disease judgment module 26 is disposed in the main controller 20, and can be used to integrate the health data of the measured person with pre-stored family disease data and then give a judgment. The life suggestion unit 32 and the disease prediction unit 31 are both coupled to the family disease judgment module 26 in the main controller 20. The life suggestion unit 32 generates daily life suggestions fit for the measured person according to a judgment result of the main controller 20, and saves the suggestions in the plurality of weekly health report interfaces 13 correspondingly. The family member broadcast module 40 is coupled to the life suggestion unit 32, and used to transmit the daily life suggestions and the plurality of weekly health report interfaces 13 to handheld mobile devices of other family members of the measured person.

[0020] The disease prediction unit 31 is also coupled to the family disease judgment module 26, and is further combined with the life suggestion unit 32. Their combination is then connected to the family member broadcast module, such that disease prediction and daily life suggestions for the measured person can be transmitted to other family members. In an embodiment of the present invention, in actual application, only the life suggestion unit 32 is disposed and the disease prediction unit 31 is omitted. That is, only the weekly health report interfaces 13 and daily life suggestions required by the measured person are transmitted to other family members, and disease prediction is excluded, to avoid excessive worry. Definitely, if required, a user can also additionally use

the disease prediction unit in actual application, to further transmit disease prediction for the measured person to other family members for reference.

[0021] In addition to the family disease judgment module 26, the main controller 20 in FIG. 2 also includes a health database 27, a data comparer 23, a short-term health risk analysis unit 24, and a long-term health risk analysis unit 25. The health database 27 is used to store standard health data, the health data of the measured person, and family disease data of the measured person; also store the plurality of weekly health report interfaces 13; and then transmit these data and the interfaces via the cloud network 18 to the first family member handheld mobile device 14a and/or second family member handheld mobile device 14b in the group for reference. The data comparer 23 is coupled to both the physiological measurement data collection module 21 and the surrounding environmental data acquisition module 22, and is also coupled to the health database 27. The data comparer receives data measured by the measuring device 10 and compares it with data in the health database 27, to generate a comparison result.

[0022] The short-term health risk analysis unit 24 is coupled to the data comparer 23, and assesses a short-term health risk of the measured person according to the comparison result. An output of the short-term health risk analysis unit 24 is coupled to the family disease judgment module 26, so as to integrate the assessment of the short-term health risk with data related to family disease of the measured person, and then give overall assessment and analysis. In this way, related content from the life suggestion unit 32 and the disease prediction unit 31 that are connected to an output of the main controller 20 can

be more accurate and complete. The reason for the previous arrangement is that prediction of some diseases and life suggestions corresponding to the cause of chronic diseases are relevant to family genes. For example, if somebody among the family members has suffered from a certain kind of cancer, other family members are more likely to get the cancer. Therefore, the family disease judgment module 26 is particularly disposed in the main controller 20 of the present invention. In addition, the long-term health risk analysis unit 25 is also coupled to an output of the data comparer 23, and used to analyze a long-term health risk of the measured person according to the health data of the measured person. Likewise, an output of the long-term health risk analysis unit 25 is coupled to the family disease judgment module 26.

[0023] In an embodiment of the present invention, the main controller 20 of the present invention may also be provided with only the short-term health risk analysis unit 24 in practice, to assess only the short-term health risk of the measured person. The long-term health risk analysis unit 25 is omitted and assessment of the long-term health risk is skipped, so as to avoid an excessively great error. That is, the present invention can make adjustment according to actual requirements of a user, but does not stipulate that only the short-term risk assessment or only long-term risk assessment is performed.

[0024] In another embodiment of the present invention, the weekly health report device in FIG. 2 also includes a new training data display module 42 and a health database update module 41. The new training data display module 42 is coupled to the combination of the life suggestion unit 32 and the disease prediction unit 31, and mainly used to enable the weekly health report system

to use new data to train the health databases 17 and 27. The databases include, but not limited to, the health database 27 in the main controller 20 and the health database 17 in the server 16. The present invention does not limit the trained databases. The health database update module 41 is coupled to the combination of the life suggestion unit 32 and the disease prediction unit 31, and used to update the health databases 17 and 27. The databases include, but not limited to, the health database 27 in the main controller 20 and the health database 17 in the server 16. The present invention does not limit the updated databases.

[0025] FIG. 3 shows a method of a weekly health report system according to the present invention, which is applied in the weekly health report system shown in FIG. 1 and FIG. 2 in combination. Entities executing steps of the method include: a measuring device 10, at least one user handheld mobile device 12, a family member handheld mobile device 14c, a server 16, and a health database 17. Herein, the health database also includes the health database 27 in the main controller 20. The steps are as follows: The measuring device reads measured data, and transmits it to the at least one user handheld mobile device (S10). The at least one user handheld mobile device uploads the measured data, and transmits it to the server (S12). The server compares the received data with data in the health database (S16). Then a comparison result is returned to the server (S17). Finally, the server pushes a family weekly report (S21), to transmit the family weekly report to the family member handheld mobile device, such that the family member handheld mobile device can receive a plurality of weekly health reports related to a measured person.

[0026] In an embodiment of the present invention, after the measuring device reads the measured data, the method further includes the following steps: The measuring device simultaneously transmits the measured data to the family member handheld mobile device (S11); and the family member handheld mobile device then transmits it to the server (S14). In another embodiment, after the comparison result is returned to the server, the method further includes the following steps: The server trains the health database by using new data (S18); and notifies the health database that update is required (S19). In still another embodiment, when the server pushes the family weekly report, the following operations are also performed: The server transmits the family weekly report to the at least one user handheld mobile device (S20), and then the at least one user handheld mobile device transmits it to the family member handheld mobile device in response to reactions from other family members (S22). In this way, the embodiment of the method of the weekly health report system of the present invention is completed.

[0027] FIG. 4 shows an embodiment of a weekly health report interface 13. A handheld mobile device of one of the family members displays members he/she follows, including John, Lisa, and Wendy; and correspondingly displays health data measured during four weeks in the last month. When a particular week related to one of the followed members is chosen by tapping, for example, when the week from January 1 to 7 related to Lisa is chosen by tapping, an image shown in FIG. 5 is presented. The image shows items including the blood pressure, pulse and blood sugar, which are merely used for description of this embodiment. In actual application, the user may also add other health data

such as fat, weight, and the like. FIG. 5 shows systolic and diastolic pressure curves of the measured person during the week from January 1 to 7, and additionally shows a statistical result based on measurement in this week and suggestions for this week. The suggestions for this week are the daily life suggestions described above, and can be provided to other family members for reference. FIG. 6 shows pulse data related to Lisa and measured during the week from January 1 to 7. Daily pulse changes of Lisa during the week are displayed, and statistics on the average pulse rate, the number of standard values, and the number of times the pulse rate is too fast or too slow are collected. FIG. 7 shows blood sugar data related to Lisa and measured during the week from January 1 to 7, including periodical fluctuation of blood sugar before and after meals. The fluctuation of everyday blood sugar of Lisa in this week is presented, and the numbers of normal and abnormal blood sugar levels can be counted, such that other family members can predict whether the measured person is likely to get particular disease.

[0028] To sum up, the present invention provides a weekly health report system and a method thereof, which can be applied in handheld mobile devices mutually connected in a family group. A weekly health report device is disposed in each handheld mobile device, and is connected to a server via a cloud network or the Internet, such that physiological information and accumulated health data measured by a measured person can be transmitted to other family members. As such, other family members can instantly know the health status of the measured family member. Further, these data can be recorded on a weekly basis, and the trend related to the health data and things

that need attention in daily life can be transmitted and displayed. Obviously, the present invention is patentable.

WHAT IS CLAIMED IS:

1. A weekly health report system, comprising:

a measuring device, used to measure physiological status of at least one measured person;

at least one user handheld mobile device, connected to the measuring device and comprising a weekly health report device, wherein the weekly health report device enables input of information output by the measuring device, produces a plurality of weekly health report interfaces, and comprises:

a physiological measurement data collection module, used to collect the information output by the measuring device;

a surrounding environmental data acquisition module, used to acquire environmental data during measurement for the at least one measured person;

a main controller, coupled to both the physiological measurement data collection module and the surrounding environmental data acquisition module, and used to execute reading, comparison and risk analysis for health data of the measured person, wherein a family disease judgment module is disposed in the main controller, and used to integrate the health data of the measured person with pre-stored family disease data and then give a judgment;

a life suggestion unit, coupled to the family disease judgment module, and used to generate daily life suggestions fit for the measured person according to a judgment result and save the

suggestions in the plurality of weekly health report interfaces correspondingly; and

a family member broadcast module, coupled to the life suggestion unit, and used to transmit the daily life suggestions and the plurality of weekly health report interfaces to other family members of the measured person;

a cloud network, connected to the at least one user handheld mobile device;

a server, connected to the cloud network, and used to store the plurality of weekly health report interfaces; and

a group handheld mobile device, connected to the server, provided with the weekly health report device inside, and used to receive the plurality of weekly health report interfaces;

wherein the main controller further comprises:

a health database, used to store standard health data, the health data of the measured person, the family disease data of the measured person, and the plurality of weekly health report interfaces;

a data comparer, coupled to both the physiological measurement data collection module and the surrounding environmental data acquisition module, and also coupled to the health database; and used to receive data measured by the measuring device and compare it with data in the health database;

a short-term health risk analysis unit, coupled to the data comparer, and used to assess a short-term health risk of the measured

person according to a comparison result, an output of the short-term health risk analysis unit being coupled to the family disease judgment module; and

a long-term health risk analysis unit, coupled to an output of the data comparer, and used to analyze a long-term health risk of the measured person according to the health data of the measured person, an output of the long-term health risk analysis unit being coupled to the family disease judgment module.

2. The weekly health report system of claim 1, wherein the weekly health report device comprises a disease prediction unit, coupled to the family disease judgment module and further combined with the life suggestion unit, wherein their combination is then connected to the family member broadcast module, such that disease prediction and daily life suggestions for the measured person can be transmitted to other family members.

3. The weekly health report system of claim 1, wherein the weekly health report device comprises a new training data display module, coupled to the life suggestion unit and used to train the health database by using new data.

4. The weekly health report system of claim 1, wherein the weekly health report device comprises a health database update module, coupled to the life suggestion unit and used to update the health database.

5. A method of a weekly health report system, used in the weekly health report system described in claim 1, and comprising:

reading, by a measuring device, measured data, and transmitting it to at least one user handheld mobile device;

uploading, by the at least one user handheld mobile device, the measured data, and transmitting it to a server;

comparing, by the server, the received data with data in a health database;

returning a comparison result to the server; and

pushing, by the server, a family weekly report, to transmit the family weekly report to a family member handheld mobile device, such that the family member handheld mobile device can receive a plurality of weekly health reports related to a measured person.

6. The method of a weekly health report system of claim 5, wherein after the measuring device reads the measured data, the method further comprises the following steps: simultaneously transmitting the measured data to the family member handheld mobile device; and then transmitting, by the family member handheld mobile device, the measured data to the server.

7. The method of a weekly health report system of claim 5, wherein after the comparison result is returned to the server, the method further comprises the following steps: training, by the server, the health database by using new data; and notifying the health database that update is required.

8. The method of a weekly health report system of claim 5, wherein when the server pushes the family weekly report, the following operations are also performed: transmitting, by the server, the family weekly report to at least one user handheld mobile device; and then transmitting, by the at least one user handheld mobile device, the family weekly report to the family member handheld mobile device in response to reactions from other family members.