user profile and based on also, program products to be avoided based on medical data.

[0132] Third party rules. These can be parent rules, children rules managing elder parents, institutional/assisted living rules, or rules provided by a particular medical treatment group.

[0133] Self rules. These include warnings and others that are pre-programmed or otherwise set or selected by the user.

[0134] Group Sensitivities. This database information may include known sensitivities in the medical world. Advocacy groups may also publish suggested database information that may be downloaded or otherwise incorporated into a user profile.

[0135] Individual Sensitivities and Preferences. These can be ingredient or other based, user may program into the user profile or otherwise into the database.

[0136] Biometrics. These may include blood glucose readings, pulse and respiratory information and/or blood pressure. In some embodiments, the biometrics may be real-time.

[0137] Although various embodiments of the device and implementation of the food management methods have been described, additionally, the device may be a stand-alone device or a magnetically readable strip on a card, for example, a user's credit card. Referring to FIG. **10**, in a smart shopping embodiment, the user interacts with a unit **1000** on the shelf by sliding their card **1002** into the unit **1000**. The unit **1000** reads the card and may display a message for the user on the unit display **1004**. Referring to FIG. **11**, the readable section **1100** may be embodied onto any type of card **1102**.

[0138] For various embodiments described herein, RFID may include an EPC Gen2: UPC label replacement. Vending machines may include RF communication. The device may include a GPS and/or internet connection. Stores can include WiFi. The device may be included on a pair of glasses (see FIG. **12**), for example, and include a visual on the glasses for the user to view. The signal means may include an RFID, bar code, hex code (proprietary bar code/specialty bar code). Current standard RFID include 125 KHz (LF) low frequency-general carrier frequency, speed pass. The RFID in some embodiment may be long distance 13.56 Mhz. HF—high frequency, ISO 14443, ISO 15693, 900 MHz-UHF-EPC Gen2 (Electronic Product Code). Also, some embodiments include 2.4 GHz-WiFi tags. The RFID device may include read and write capabilities. Also, the RFID may include a permanent read only area with a unique serial number that can never be changed. Some of these tags may be set-up to be read-only, write once memory (used as a fuse). In other embodiments, the RFID tags may be WORM ("write once ready many"). In some embodiments, a store code can be imparted onto the product at the manufacturing facility.

[0139] In some embodiments, the food item is recognized optically with a camera (see FIG. **9**). In some embodiments, a camera is on a cell phone **900** or other multi-functional device is used. In one embodiment, a stand-alone camera **902** may be the device. The optical recognition may be based on a picture of the whole product **904** or a picture of the label. In other embodiments, optical image recognition of UPC label, bag or product itself is used.

[0140] In still other embodiments, the food item identity may be determined by a chart/flip chart/booklet including the food items along with a code. In these embodiment, the user either manually enters this code or there is a bar code to scan into the device.

[0141] Nutritional information may include, but is not limited to, calories, serving size, glycemic index, fat content, cholesterol content, saturated fat content, fiber content, sodium, presence of particular amino acids, percentage daily allowance of vitamins, percentage of daily allowance of any nutrient, percentage daily allowance of calories, fat, and/or cholesterol, allergy items included in the food item, and known interactions with medications.

[0142] In some embodiments, the device may give a shock to the user when the user selects or eats a food item in which they chose to setup a rule against eating or purchasing. In other embodiments, the device may suggest a wine pairing based on criteria to complement a food item or food items or recipe. In some embodiments, recipes are available on the database and automatically include items in the shopping list on the user profile, if desired.

[0143] The smart-shelf may be implemented using IR or RF or any wireless protocol known to one of ordinary skill in the art. The shelf may include an LCD display. The shelf may be designed as a low voltage system for low power requirements. In some embodiments, the shelf may be implemented with a 2 way radio (or IR communication), memory, and software, indicator, power source (solar powered) or connected to a power source, may include an LCD, or may include only a LED or light. In some embodiments, the shelf may be capacitor charged either by solar or electric source. The shelf may, in some embodiments, include a battery onboard, and in some embodiment, the battery may be rechargeable.

[0144] While the principles of the invention have been described herein, it is to be understood by those skilled in the art that this description is made only by way of example and not as a limitation as to the scope of the invention. Other embodiments are contemplated within the scope of the present invention in addition to the exemplary embodiments shown and described herein. Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention.

What is claimed is:

1. A method of operating a remote controller for an insulin pump on a user comprising the steps of:

scanning information corresponding to a food item;

requesting quantity information from the user on the amount of the food item;

receiving quantity information from the user on the amount of the food item;

accessing a database containing nutritional information of the food item;

receiving a blood glucose value of the user;

calculating an estimated bolus amount of insulin based on the blood glucose value, the nutritional information of the food item and the quantity information;

indicating to the user the estimated bolus amount of insulin; and

sending to the insulin pump information corresponding to the estimated bolus amount of insulin.

2. The method of claim **1** wherein the scanning information includes scanning a bar code on the food item.

3. The method of claim **1** wherein accessing a database includes remotely accessing a database.