Proposal for Airport Health Kiosks

For

Healthy Wealthy Wise

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Section 1
INTRODUCTION

Futrex is pleased to provide Healthy Wealth Wise this proposal for unique Health Kiosks for use in airports and other public locations in the US. This proposal is based on the following assumptions:

Healthy Wealth Wise desires a unique design Health Kiosk that is economical, accurate, and can be easily installed in US airports.

The design of the Health Kiosk should include the measurement of blood pressure (systolic, diastolic and heart rate) as well as percent body fat.

The design should allow economical future expansion to include measurement of other health parameters such as non-invasive cholesterol, glucose, etc..

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The Futrex design will use its patented "Measurement Module" that contains all aspects of the blood pressure and body fat measurement system including a touch screen computer. For future compatibility, the system is designed to operate on Microsoft Windows XP for which Microsoft has committed to provide future support for a minimum of the next ten years.

Initial deliveries of the Healthy Wealth Wise Kiosks would be for a pilot program consisting of 2 kiosks as soon as possible.

This proposal document provides a detailed description of the Futrex design as well as the costing for the pilot program. Included in the costing are several options that can be integrated into the design if Healthy Wealth Wise so desires.

FIGURE 1 - The proposed Healthy Wealth Wise Health Kiosk

Section 2
The Measurement Module

The Measurement Module, illustrated in Figure 2, contains the following capabilities:

The unique Futrex blood pressure cuff which self adjusts to comfortably fit any arm. This cuff avoids the problems associated with kiosk systems that use rigid, fixed diameter tube blood pressure systems; e.g., when small arms are measured, the bladder must be hyper-inflated which causes a significant loss in accuracy.

Built into the cuff assembly is the Futrex patented near-infrared sensor that measures percent body fat. This technology is the most reliable non-invasive method of percent body fat determination.

All electronics and pneumatic elements of the measurement system, including the 15 inch touch-screen computer system with Microsoft XP operating system.

A steel structural tube on which all elements of the measuring system are mounted: i.e. the cuff assembly, the arm rest and the touch-screen computer are mounted. Hidden inside the steel tube are all the wiring and air hose for operating the blood pressure meter. The steel pipe provides a "grab bar" to assist the aged to stand up after a test (see figure 3)

Figure 2 – The entire Measurement Module is light weight and simple to install

Figure 3 – The steel pipe provides a "grab bar" to assist the aged to stand up after a test.

Another feature of the Measurement Module is that it attaches to the kiosk via a simple pivot point. This allows the entire Measurement Module to be swiveled letting the system be used by wheelchair bound people, an important feature in pharmacy installations. The design allows the person in the wheelchair, by pressing on a hidden lever, to rotate the entire measurement platform. This permits the wheelchair is be rolled to the position where unassisted blood pressure and body fat measurement can be made (figure 4). Futrex has used this Swivel-Head design in a multitude of installations. It has been proven to be 100% reliable - - - there has never been a single reported problem.

The design shown in Figure 1 is the standard Futrex kiosk design. Alternate kiosk designs are also available, which will be described later.

Figure 4 – The design allows unaided wheelchair accessibility. For photo clarity, no person is shown in the wheelchair.

2.2 The Size of the Kiosk

It is clearly recognized that only a limited amount of floor space is available at most pharmacies. Therefore the “footprint” of the proposed Health Kiosk is quite small - - - 20" X 27". The standard height of the Kiosk is 69", however it can be changed if Healthy Wealth Wise desires. The standard height allows 4 large advertising panels, plus up to 6 “take away" advertising cards or folders.

Section 3
Health Measurements

This section contains a detailed description of the various health measurements that Futrex is proposing to include in the Healthy Wealth Wise Kiosk. This section also includes additional measurements that can be added in the future without obsoleting the kiosk design.

3.1 Proposed Health Measurements

Futrex proposes that the initial system provide blood pressure measurements (i.e., systolic, diastolic and heart rate) as well as the measurement of percent body fat.

3.1.1 Blood Pressure Measurement – The Futrex Blood Pressure Measurement system fully satisfies the U.S. FDA requirements and Specification ANSI/AAMI SP10:2002. In addition to satisfying the European standards, it also satisfies European Standard EN1060 Parts 1, 3 and 4 (Part 2 is not applicable). The design also satisfies applicable parts of European Standard EN6061.

The Futrex System uses the unique blood pressure sensing system developed by Omron Corporation, the world leader in blood pressure measurement systems.

The Futrex patented blood pressure cuff operates similar to a conventional window shade. Figure 5 illustrates the sequence of how the cuff expands as the arm is entered into it. Likewise, when the arm is removed the cuff returns to its original position. The design is mechanically simple with essentially no means of failure.

Figure 5 - The Futrex cuff hugs the arm similar to the wrap technology used in physician's offices.

This Futrex approach has an advantage compared to other types of kiosk blood pressure cuffs:

It eliminates the error prone fixed diameter rigid tube, with the inflatable bladder attached to the inside surface of the tube that have been previously used in pharmacy kiosks. In

such systems, when a small arm is inserted, the bladder must be hyper inflated, thereby providing minimum resolution of the blood pressure accuracy. A second limitation of a rigid fixed tube arrangement is that if a person who has an excessively large diameter arm forces their arm into the rigid tube, at times it is essentially impossible to remove the arm, particularly if the arm starts to sweat. In such cases, the total disassembly of the rigid tube is required to free the arm.

These limitations are not present in the Futrex system. Moreover, the cuff material was specifically chosen to be uniquely "slippery" (technically defined as having a "low coefficient of friction") so the arm can be easily slid in and out independent of the size of the arm. One other major feature of the Futrex system is that it not only measures the blood pressure and heart rate parameters, but it also detects if an irregular heart beat has occurred (see Figure 6).

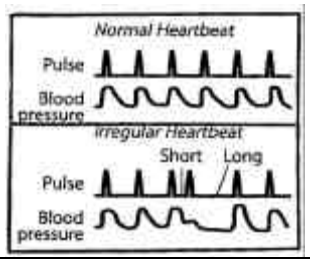


Figure 6

Abnormal heart beats are common, especially in older people and can occur in healthy hearts and be of minimum consequence. However, they may also indicate a serious problem leading to heart disease, stroke or sudden cardiac death. In the Futrex design, the kiosk owner has the choice on whether or not to have the kiosk display the detection of an irregular heart beat. If he chooses to display it, and if an irregular heart beat was detected, the display will also include an explanation of what it might mean.

3.1.2 Measurement of Percent Body Fat – There are two technologies for measuring percent body fat. They are:

Use of bioelectrical impedance

Use of near-infrared

Bioelectrical impedance - Bioelectrical-impedance measurement involves passing a low level, oscillating electrical current through the body. The theory is if the body is "stable" (i.e., it has normal level of water and electrolytes), it will conduct electricity that is proportional to the amount of water in the body. This allows calculation of the percent body fat.

Bioelectrical impedance provides a highly accurate measurement of body fat provided that the National Institutes of Health ("NIH") specified protocol is exactly adhered to. The protocol includes:

-No measurement within four hours of eating.
-No alcoholic beverages for twenty-four hours prior to the test.
-No smoking within one hour of test.
-No exercise within two hours of test.
-The subject sits and rests for a minimum of ten to fifteen minutes prior to the test to allow his body to stabilize.
-There will be no hand lotion or other type of artificial moisturizers anywhere on the body.
-Several other restrictions.

Because of these limitations, the largest manufacturer of bioelectrical impedance instruments (i.e., Tanita Corporation) states in their manual that measurement should be made only at the same time during the day, typically just prior to the evening meal. Measurements made at any other time during the day could be in error by as much as six percent.

An even more serious problem occurs if the person has a pacemaker or an implanted defibrillator. The NIH (National Institute for Health) states that there is no evidence of the safety for those people with such devices when subjected to the low electrical currents of a bioelectrical impedance measurement. NIH further states that the risk to an early stage fetus is unknown and strongly recommends women that may be pregnant or might become pregnant should not be measured with bioelectrical impedance. Figure 7 (7-1 & 7-2) is from a lawyer's newsletter that describes the legal ramifications of using bioelectrical impedance.

From the November 2003 Client Newsletter "Product Liability Prevention"

Liability Risks When Choosing Between Two Technologies

"Sometimes a Penny Wise is a Pound Foolish"

Howard F. Longfellow
Stanley, Hollis and Goodbody, LLC

A major client asked us to advice them on selecting between two competing technologies for incorporation in their new product. They explained that their planned product would perform certain health related measurements, including determining a person's percent body fat. One of the competing methods of providing percent body fat used a low level electrical current that passes from the left arm, through the body, and then out through the right arm (called "Bioelectric Impedance" or "BIA"). The alternative technology, that is approximately ten times more expensive, uses low level light that is shined on a body part and measures how much of that light is absorbed or reflected off the body part. The client further stated that cost was an important consideration, and therefore, they were leaning towards the use of BIA. They asked what is the potential product liability litigation with each of the two competing techniques.

In response, my firm performed a detailed literature search as well as interviewed government and industry authorities. The conclusion was that both technologies could provide accurate percent body fat measurements.

The literature search also showed that the optical method of body fat measurement does not introduce any liability risks. However, the BIA approach introduces two potential concerns that are not present in the optical measurement approach.

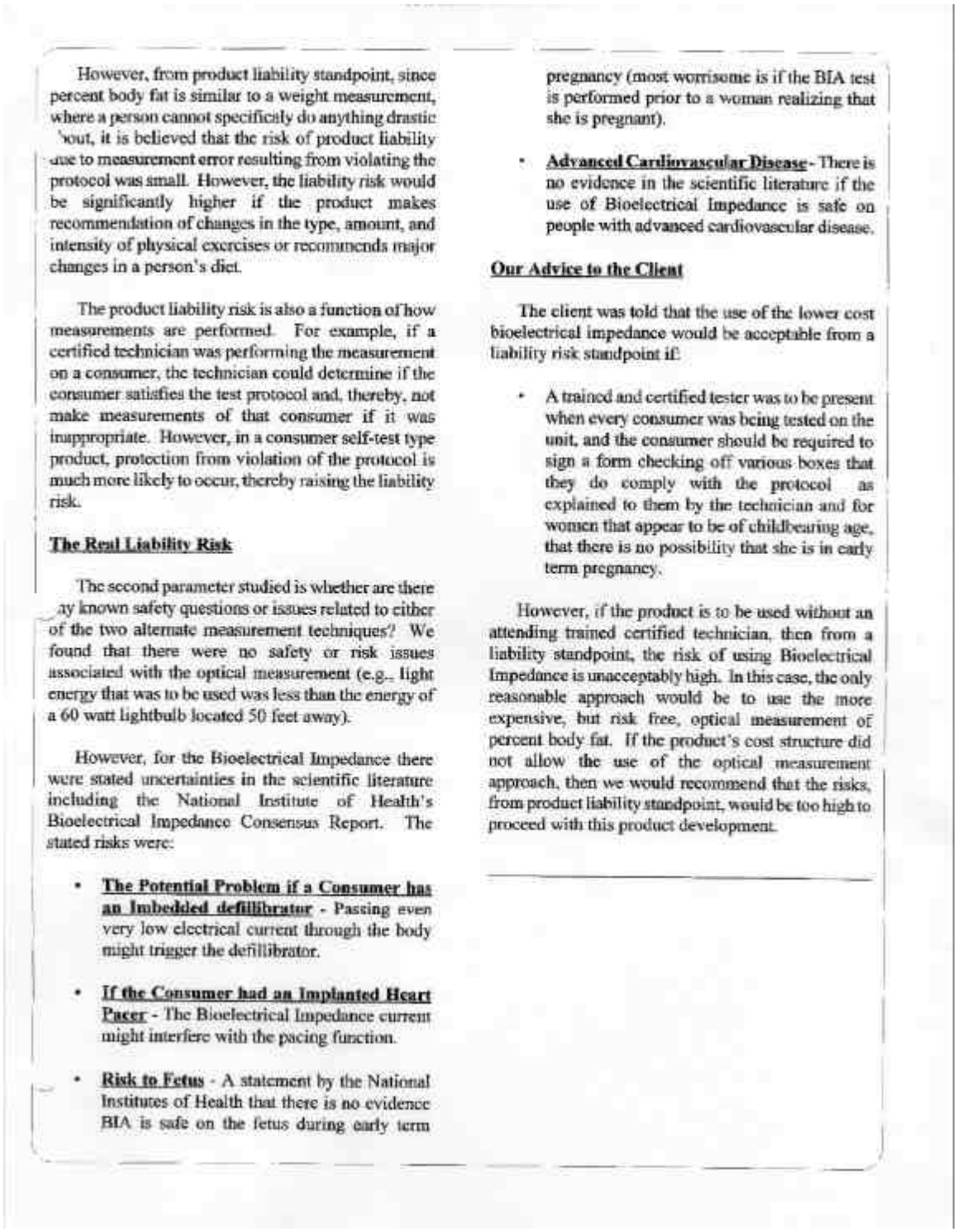
Bioelectrical Impedance Concerns

The first concern was that the accuracy using BIA is quite dependent on the state of the body's hydration level (i.e., the amount of water in the body varies considerably during any day). The literature, and in particular the National Institute of Health's BIA Consensus Report states that accurate BIA measurements can be made, provided that the measurements are made in conformance with their recommended protocol (i.e., test procedure). The required BIA protocol includes:

- No testing within several hours after eating.
- No testing within several hours after exercise.
- The person should be relaxed for a minimum of 10 to 15 minutes prior to making the measurement.
- For women, measurements should not be made just prior to and during their menstrual cycle.
- Others.

If the above protocol is not followed, significant errors in the percent body fat could occur. For example, instead of someone being correctly measured at 12% body fat, they might have a false reading as high as 18 or 19% body fat.

Figure 7-1



However, from product liability standpoint, since percent body fat is similar to a weight measurement, where a person cannot specifically do anything drastic 'out, it is believed that the risk of product liability due to measurement error resulting from violating the protocol was small. However, the liability risk would be significantly higher if the product makes recommendation of changes in the type, amount, and intensity of physical exercises or recommends major changes in a person's diet.

The product liability risk is also a function of how measurements are performed. For example, if a certified technician was performing the measurement on a consumer, the technician could determine if the consumer satisfies the test protocol and, thereby, not make measurements of that consumer if it was inappropriate. However, in a consumer self-test type product, protection from violation of the protocol is much more likely to occur, thereby raising the liability risk.

The Real Liability Risk

The second parameter studied is whether are there ay known safety questions or issues related to either of the two alternate measurement techniques? We found that there were no safety or risk issues associated with the optical measurement (e.g., light energy that was to be used was less than the energy of a 60 watt lightbulb located 50 feet away).

However, for the Bioelectrical Impedance there were stated uncertainties in the scientific literature including the National Institute of Health's Bioelectrical Impedance Consensus Report. The stated risks were:

- **The Potential Problem if a Consumer has an Imbedded defillibrator** - Passing even very low electrical current through the body might trigger the defillibrator.
- **If the Consumer had an Implanted Heart Pacer** - The Bioelectrical Impedance current might interfere with the pacing function.
- **Risk to Fetus** - A statement by the National Institutes of Health that there is no evidence BIA is safe on the fetus during early term pregnancy (most worrisome is if the BIA test is performed prior to a woman realizing that she is pregnant).
- **Advanced Cardiovascular Disease** - There is no evidence in the scientific literature if the use of Bioelectrical Impedance is safe on people with advanced cardiovascular disease.

Our Advice to the Client

The client was told that the use of the lower cost bioelectrical impedance would be acceptable from a liability risk standpoint if:

- A trained and certified tester was to be present when every consumer was being tested on the unit, and the consumer should be required to sign a form checking off various boxes that they do comply with the protocol as explained to them by the technician and for women that appear to be of childbearing age, that there is no possibility that she is in early term pregnancy.

However, if the product is to be used without an attending trained certified technician, then from a liability standpoint, the risk of using Bioelectrical Impedance is unacceptably high. In this case, the only reasonable approach would be to use the more expensive, but risk free, optical measurement of percent body fat. If the product's cost structure did not allow the use of the optical measurement approach, then we would recommend that the risks, from product liability standpoint, would be too high to proceed with this product development.

Figure 7-2

Near-infrared - Near-infrared measurement of percent body fat is a somewhat more expensive method than bioelectrical impedance. However, it has the distinct advantage: it directly measures percent body fat (unlike bioelectrical impedance that measures conductivity of water and electrolytes in the body and then calculates percent body fat). Near-IR, measurements are independent of the body's hydration level and thus there are no protocol nor safety limitations.

Research at several government nutritional laboratories has shown that there are four sites on the human body where the local percent body fat at those sites is directly proportional to the total body fat. Thus, by making a measurement at any one of those four sites, provides an accurate measurement of percent body fat. One of the measurement sites is on the biceps of the left arm, and an alternate measurement site is on the triceps.

Futrex holds a number of fundamental patents in near-infrared measurement of body fat. To date, Futrex has sold over 90,000 near-IR body fat measurement systems.

The Futrex cuff used for blood pressure measurement has been designed so that the near-infrared body fat measurement is built into it. The measurement is made simultaneously with the blood pressure measurement.

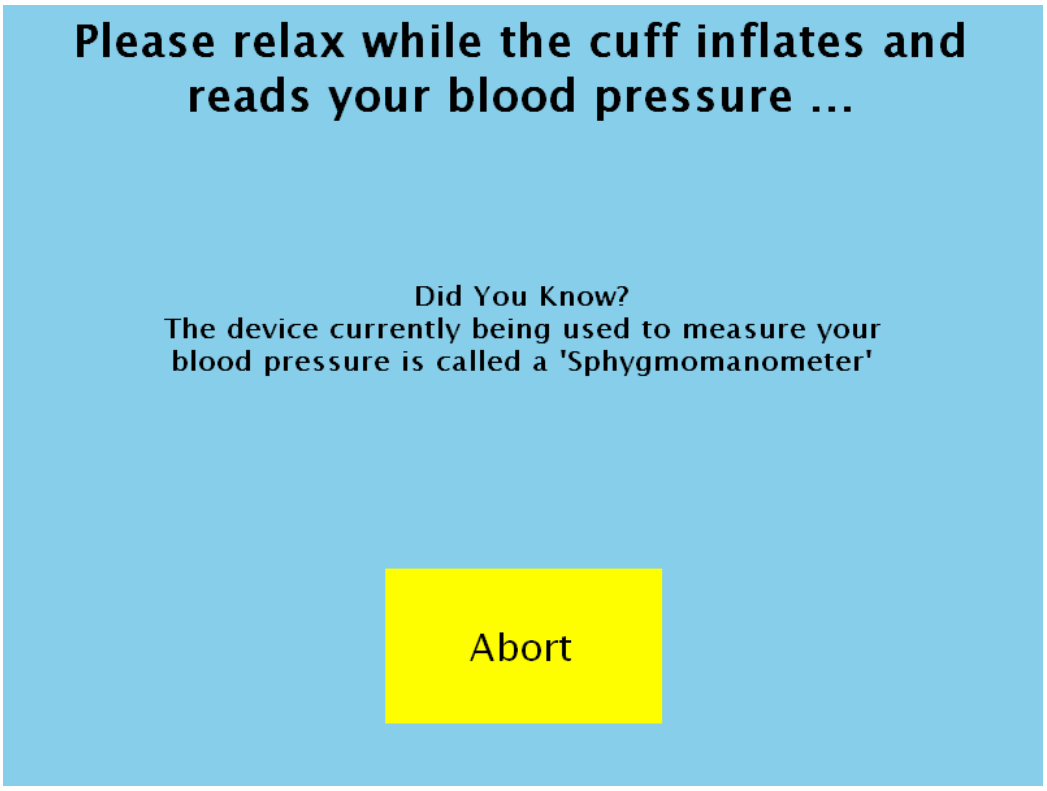
Section 4

How the Measurements are Performed

Futrex clearly understands that the content of the various touch screen displays will be jointly derived by Healthy Wealth Wise's Interactive Marketing Team and Futrex. To help get that process started, we offer the following set of basic Touch Screen sequences.

Screen Display 1 is shown while awaiting a Guest to sit in the kiosk, and instructs the guest to insert his/her arm into the measurement cuff.

Screen Display 2 is shown during the measurement. The "Did You Know" is displayed and changed every ten seconds. The purpose of the "Did You Know" is to provide some unemotional reading material for the person during the blood pressure measurement. Human factor experiments have shown that such reading material makes the measurement time appear to pass more quickly.



Other "Did You Know" items might be:

The device currently being used to measure your blood pressure is called a "Sphygmomanometer."

Eating potassium-rich foods such as sweet potatoes, bananas, and spinach can counteract some of sodium's negative effect on blood pressure.

Approximately 25% of all adults have high blood pressure.

The giraffe has the highest blood pressure of any mammal.

Systolic pressure is the pressure in the artery when the heart contracts.

Diastolic pressure is the pressure in the artery when the heart relaxes.

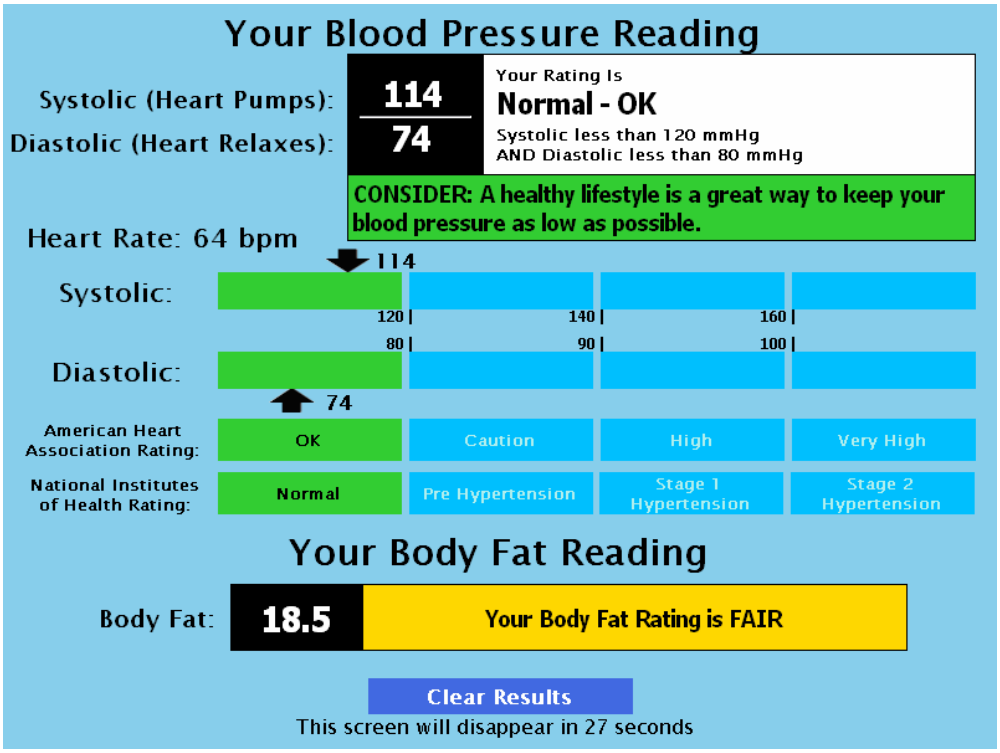
High blood pressure can be caused by stress, fear, worries, and prolonged nervous behavior.

Chronic alcohol consumption can lead to high blood pressure.

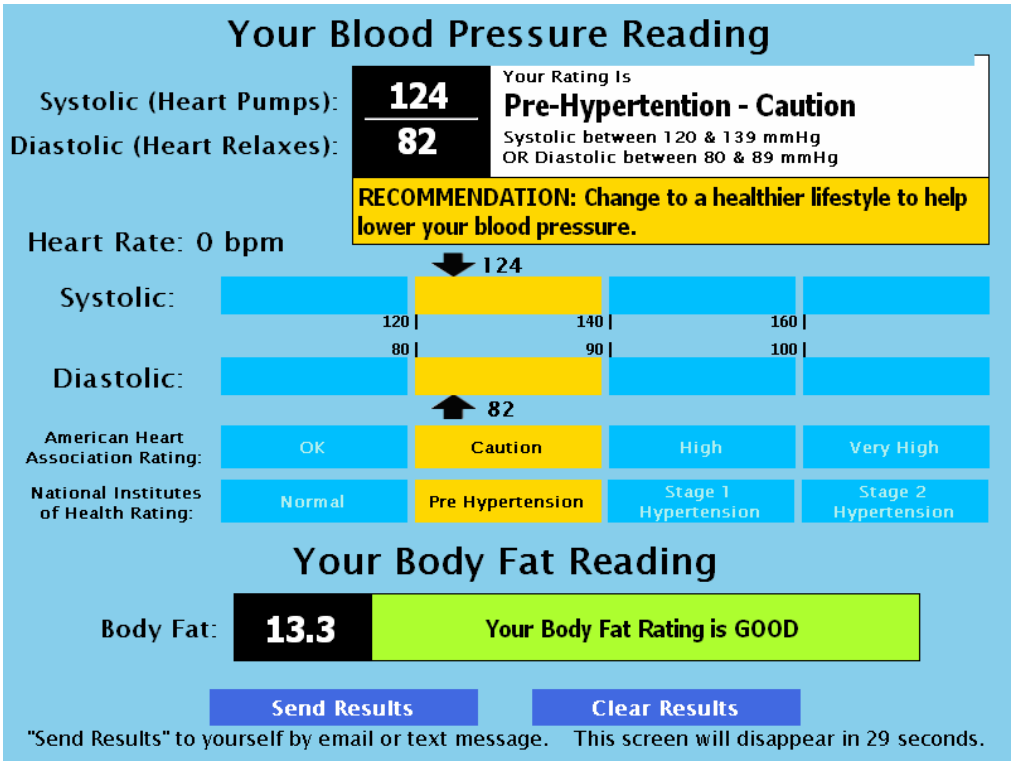
Research indicates that owning fish aquariums can lower blood pressure in both hypertensive and normal subjects.

Screen Displays 3, 4, 5, and 6 illustrate the four types of blood pressure categories that exist along with percent body fat interpretation. The appropriate one will be the one displayed for the guest.

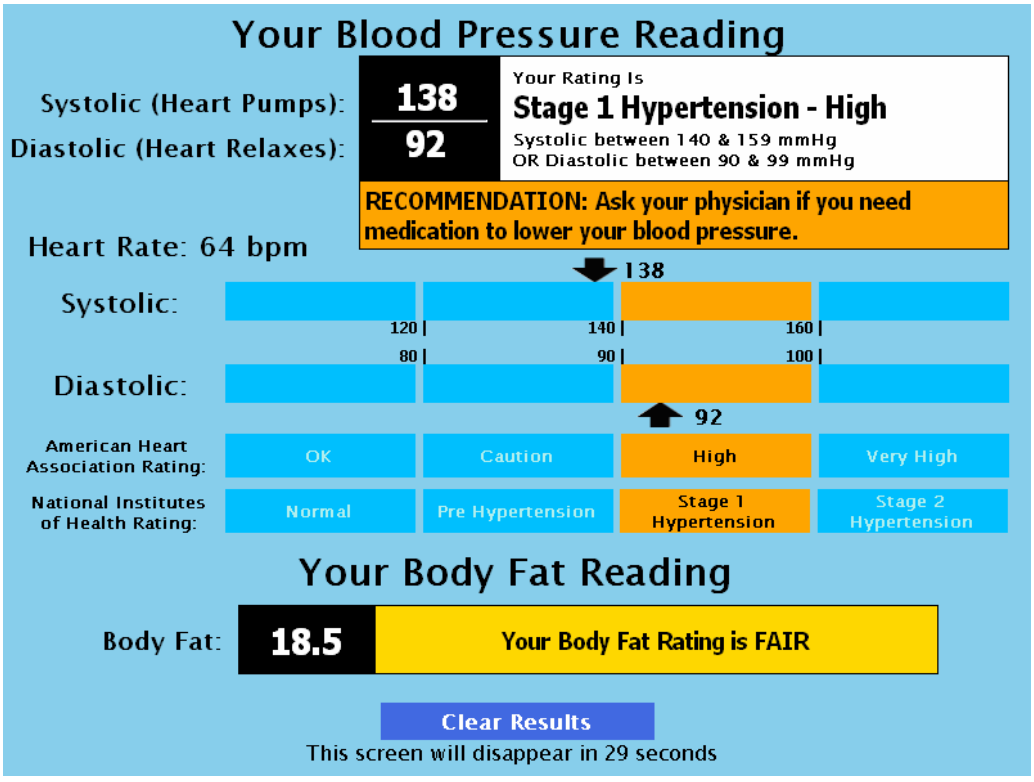
Screen Display 3



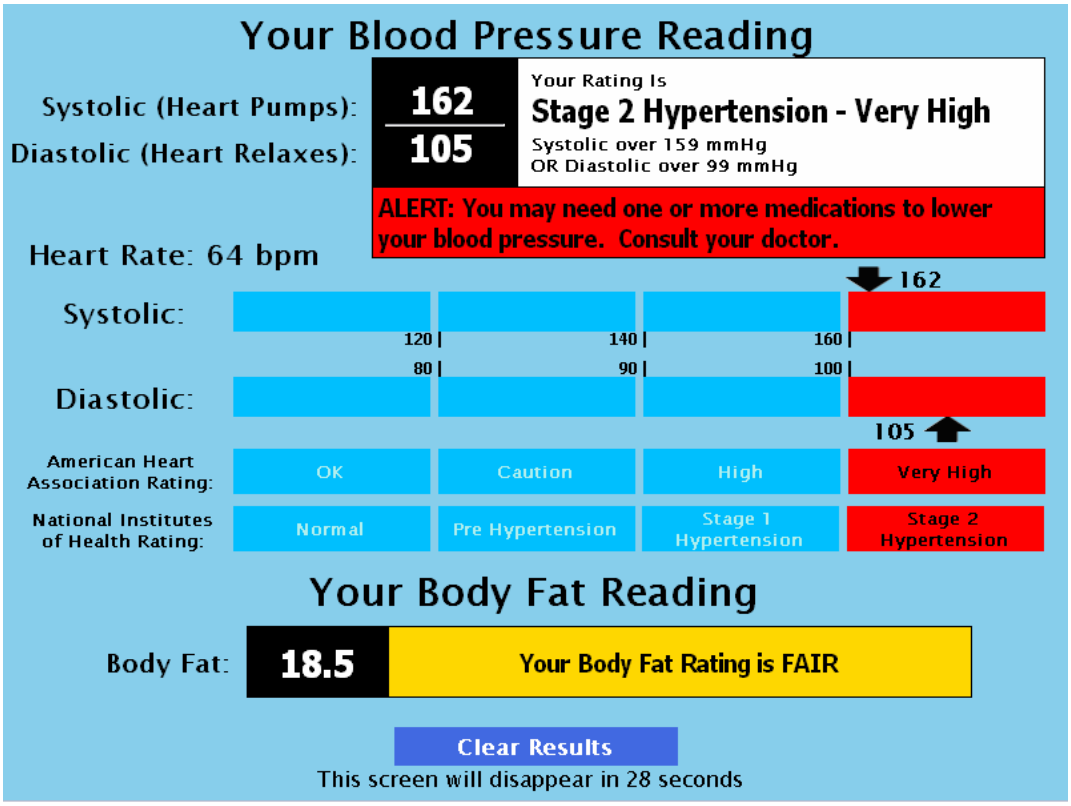
Screen Display 4



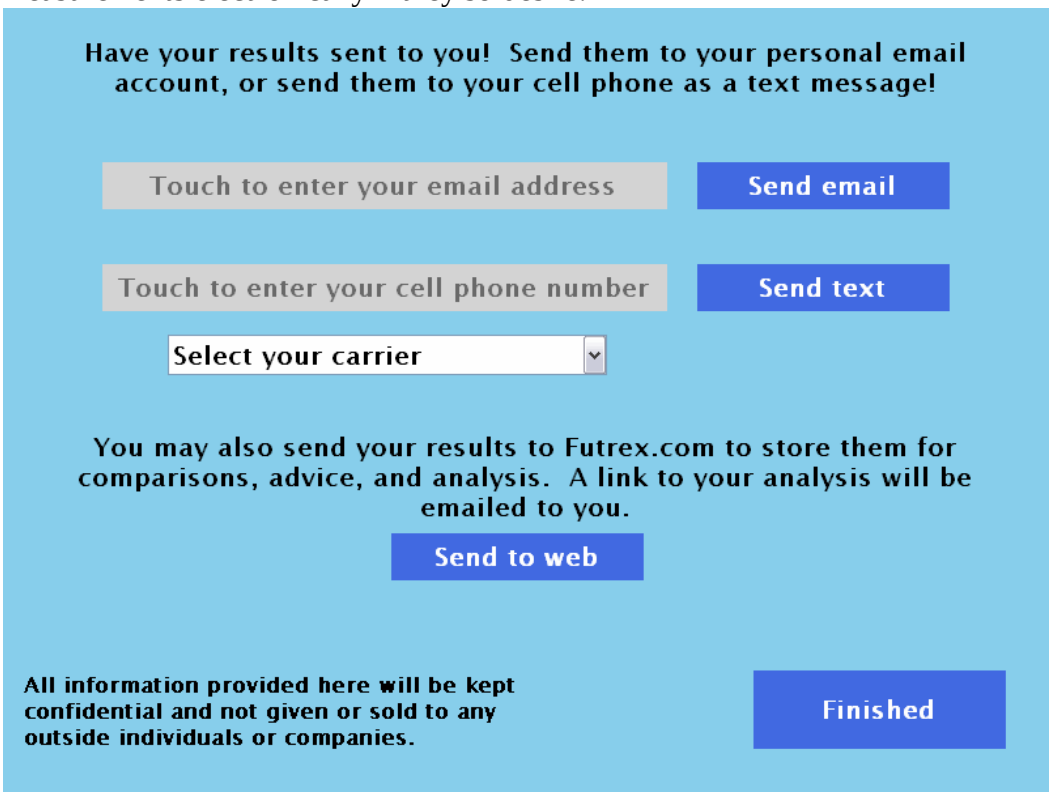
Screen Display 5



Screen Display 6



Screen Display 7 provides the Guest with the choice of how to send the measurements electronically if they so desire.



Screen Display 8 is the keyboard that if the person selected to send the data to her e-mail address (this option is discussed in Section 6).

Section 5
Future Health Measurements that Can Be Added

The proposed kiosk includes the wiring and other necessary internal features that allow easy addition of future potential health measurements. Thus, once the units are installed, if and when it is desired to add the additional health measurements, then it would be simple to incorporate them.

The following is a description of some of these additional measurements:

5.1 Weight Measurement

There are two generically different methods of performing the weight measurement in a kiosk application:

Weighing While The Person Is Standing – The person stands on a scale that is built into the floor of the kiosk. This approach provides an accurate weight. However, it requires the kiosk to have sufficient room 9i.e. floor space) so that very heavy (or morbidly obese) people would not interfere with either the seat, the walls or the touch-screen computer. Within the desire to limit the floor space needed for the Health Kiosk, the extra area needed for a standing measurement of weight is not believed to be practical. Even if there was room, there is also the potential tripping problem of people getting onto the standing scale. Avoiding this potential problem usually requires adding a wooden floor to the kiosk with a sloped entry to minimize tripping. This adds significant shipping weight to the kiosk as well as the risk of stumbling on the "entrance ramp" that typically has to be 5 to 8 cm above the floor.

Weighing While the Guest is Seated - In this approach the person is seated just prior to the start of the blood pressure reading. In general, such an approach causes a small inaccuracy of approximately +/- 0.5 kg. Such inaccuracy is caused by the person not sitting up straight. In other words, if the same person is weighed leaning far forward versus leaning far back, as much as a 1 kg change in weight could occur. This weighing error could be reduced in half by adding a foot bar to rest the feet on. Moreover, by having a touch screen computer provide a clear pictorial of how to sit straight, it further reduces the potential error. Testing during the human factor study of the mock-up scale module (Figure 8) showed that the error could be reduced to +/- 0.3kg. This size error is considered negligible because a difference of clothing weight from individual-to-individual and from season-to-season.

As shown in Figure 9, Futrex holds a fundamental patent on performing the weight measurements in a kiosk application while the person is seated.

Figure 8-1
Photo of the demonstration model of weighing system.

Figure 8-2
Person sitting on the weighing system.

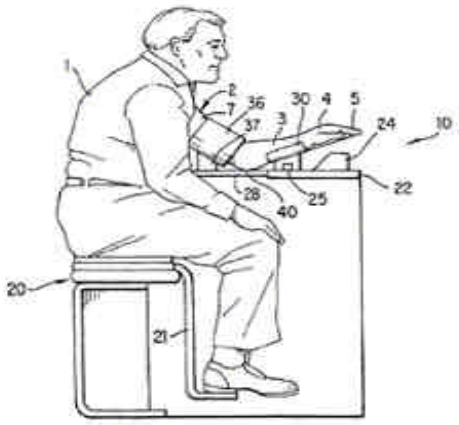


Figure 9 - Fundamental Patent of Weighing a Person in a Health Kiosk

To perform the weighing function, Futrex recommends incorporation of HealthOMeter Scale (Number 349KL). It has a 200 kg weighing capacity. Moreover, this particular scale can survive a weight of up to 320 kg without damage. The HealthOMeter Scale provides an RS-232 output that directly interfaces to the Futrex Interface Card that feeds

the PC. Wiring for connecting the RS-232 will be part of the basic unit design, thus no wire runs would be needed if and when weight measurement would be added.

Figure 10 illustrates how the weight measurement can be added to the kiosk at a store. The upper 2" of the kiosk seat is easily removed by quick release fasteners accessed through the door that is under the seat. (To remove the seat takes less than one minute and the removed portion is discarded.) The weighing system, mounted on a replacement seat fits where the previous seat top had been removed. The height of the scale remains the same as the height of the original seat. The only requirement is to insert the RS-232 connector from the scale into the wiring harness that is located under the seat. The estimated total time is less than five minutes. The only tool required for the entire operation is a screwdriver.

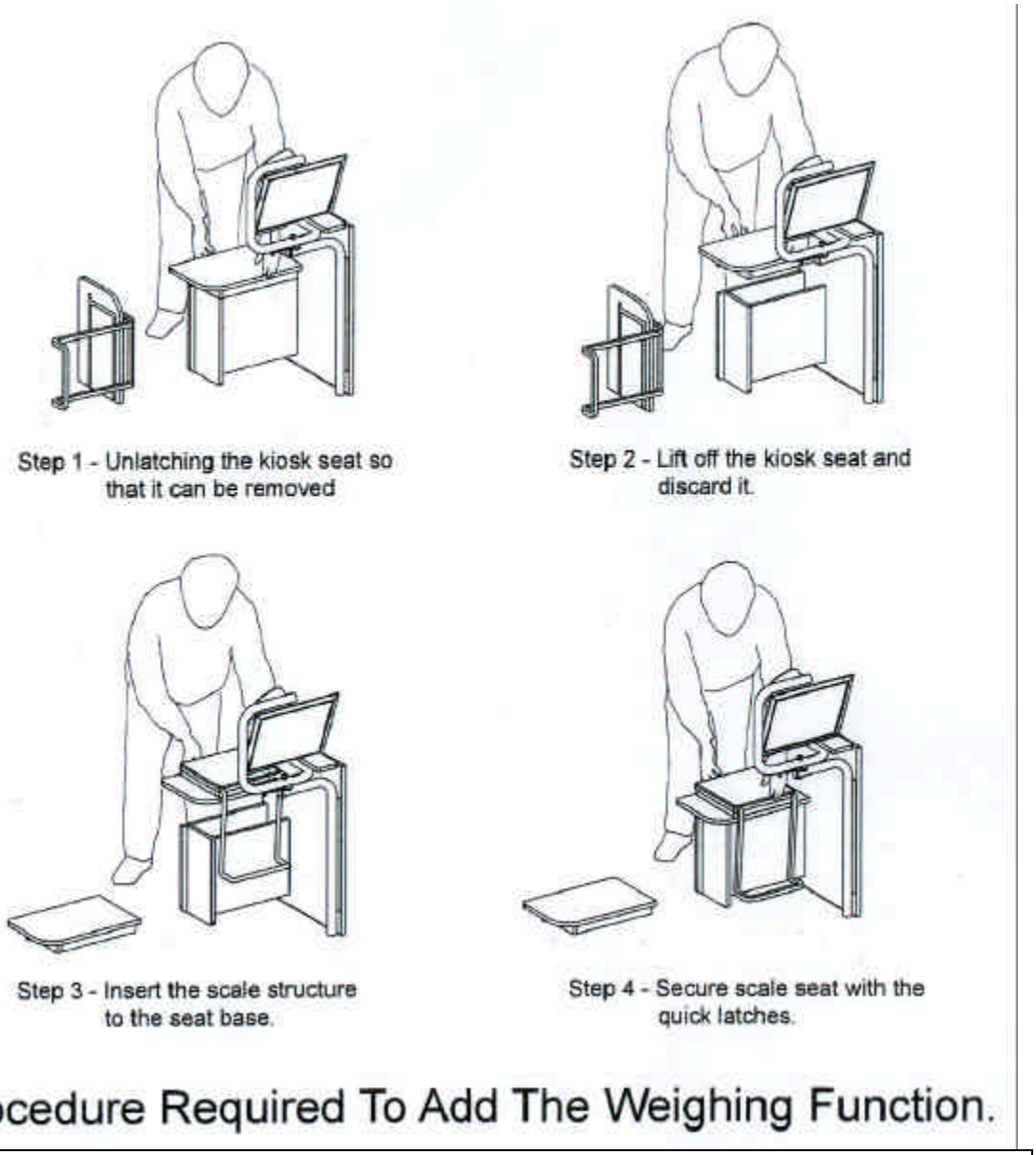


Figure 10

5.2 Other Health Measurements

Futrex is in the final phase of development for nine additional health measurements that can be added to the kiosk. These measurements include:

Group 1

-Blood Circulation Analysis
-Pulse Oximetry
-Heart Rate Variability

Group 2

-Skin Tissue Cholesterol
-Ratio: Total Cholesterol/HDL
-Carotenoid Level

Group 3

-Blood Glucose
-Blood Total Cholesterol
-Hemoglobin

Appendix "B" provides a typical “Health Report Card” for these additional measurements.

Section 6
Transfer Of Data

The proposed Health Kiosk provides valuable information to each person that is measured. This information can either be written down by the person, or can be transferred electronically to some other "forum." In fact, there are four basic approaches that can be considered:

-No data transfer' the person simply writes down his results on a printed card supplied at the kiosk (this is the method currently used in over 99% of blood pressure kiosks)
-Transfer the data via the internet to a person's home e-mail address
-Transfer the data via the internet to a web site

Independent of which approach is chosen, it is mandatory to insure the privacy of the individual and his data when he uses the kiosk. For this reason, none of the approaches that will be described in this section require that the person's name, address, identification number, or any other similar identifying information be provided.

6.1 Using the Internet

An alternate approach is to use the internet capability that is available many locations in order to send the measured data either to the person's home, or to an internet web site. To do this, either an in-store wireless connection or an Ethernet connection must be made available to interface to the web.

This internet approach also provides some added capability. For example, if it's a chain store, the headquarters could electronically survey all of its kiosk to determine the statistics of the kiosk's usage (e.g., the usage by gender, by age, by time of day, etc.) This detailed information could assist the pharmacy chain and each local store to promote and locate products according to the population that uses the kiosk. A second advantage is that the user has the option of either sending the data directly to his home by entering his e-mail address or by sending it to the informational web site

One of the considerations if we do use an internet connection is the need for including a vigorous antivirus, anti spyware, anti adware, protective software. Futrex has extensive experience in this and this could be done for a modest price.

If the web site solution is decided upon, the web site could operated either by Healthy Wealth Wise or by Futrex. In either event, when the individual interrogates the history of his measurements, the opportunity to provide advertisement of OTC products is attractive.

Section 7
Cost and Options

The cost for an order of 2 initial Health Kiosks with delivery this coming summer would be:

$10,900.00 (USD) per unit

The above price includes the measurement of all the blood pressure parameters (systolic, diastolic and heart rate) as well as percent body fat. The Kiosk design would be similar to that shown in Figure 11 (By far our most popular model) Price includes shipping, insurance and one year warranty.

Larger quantity pricing can be discussed once Healthy Wealth Wise has a clear idea of how many kiosks may be required.

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Figure 11 - Futrex's Recommended Design

7.1 Measurement Options

The basic system provides measurement of blood pressure (including systolic, diastolic and heart rate) as well as the determination of an irregular heart beat (can be or cannot be displayed, depending upon the pharmacy's choice). In addition to these measurements, there are four possible additional measurement "groups":.

Weight – This is the Futrex designed seat scale. The cost for adding this feature at the time of the order is $268 per unit.

"Group 1 Measurements" include non-invasive measurement of Blood Circulation Analysis, Heart Rate Variability Analysis and Pulse Oximetry. The cost for adding this entire group has not yet been defined. It's costing is awaiting FDA and CE approvals.

"Group 2 Measurements" include non-invasive measurement of Carotenoid Level, Skin Tissue Cholesterol (also called Sterol Analysis), and Ratio: Total Cholesterol divided by HDL. The cost for adding this entire group has not yet been defined. It costing is awaiting FDA and CE approvals.

"Group 3 Measurements" include non-invasive measurement of Blood Glucose, Total Cholesterol, and Hemoglobin. The cost of adding this entire group has not yet been defined. Its costing is awaiting FDA and CE approvals.

The Measurement Module of the Health Kiosk has been specifically designed so that any or all of the above Options can be added at any time to the Health Kiosks.

7.2 Other Options

7.2.1 Including Advertisements On The Touch Screen Displays – Futrex can store up to 1,000 different advertisements that can be randomly selected and displayed during the testing or when the data results are available. Moreover, if the Kiosk is attached to the internet, Futrex can design its software so that additional ads can be brought down from the internet, thereby allowing the Kiosk to always remain current. The cost for including this advertising capability would add $29 to the basic price of each unit.

7.2.2 Internet Capability– If there is available internet capability, the person has the option of sending his data directly either to his home e-mail address or to the internet site where a detailed analysis can be provided to him. The cost for this option is an additional $31 per unit.

7.2.3 Internet Site with Data Analysis – In this approach, no Smart Card is used. The data is simply sent from the kiosk to the internet and the person using his home computer can go to a private internet location to be able to analyze and review his health progress. The cost for this option is $95 per kiosk and includes the cost of providing the internet protection service (firewall, antivirus, anti hardware, and spy protection).

Your Health Report Card

Date: Aug. 10, 2006 **Your ID #:** APG551

DATA YOU SUPPLIED

Your Height 6' 4" **Gender:** ■ **Male** ☐ **Female** **Age** 51

Overnight Fast ☐ **Yes** ■ **No**

CARDIOVASCULAR ASSESSMENT

BLOOD PRESSURE

Systolic 126 mmHg Diastolic 86 mmHG Pulse 77 bpm

Your rating: ☐ Normal ■ Pre-Hypertension ☐ Stage 1 Hypertension ☐ Stage 2 Hypertension

According to the American Heart Association, nearly one in three U.S. adults has high blood pressure, but because there are no symptoms, many people have high blood pressure for years without knowing it. Uncontrolled high blood pressure can lead to stroke, heart attack, heart failure or kidney failure. This is why high blood pressure is often called the "silent killer."

BLOOD CHOLESTEROL: 160-180 mg/dL

Your result is: ■ Normal ☐ Abnormal

This is the amount of total cholesterol flowing in the blood stream. High levels of cholesterol and various blood fats increase your risk for heart disease and strokes. NIH recommends that of total blood cholesterol should be less than 200 mg/dL.

SKIN TISSUE CHOLESTEROL: 94 Units

Your result is: ■ Normal ☐ Abnormal

A second, and independent health risk is how much of the cholesterol in the blood actually adheres to the walls of the blood vessels and subsequently enters the skin. High Skin Tissue Cholesterol (also called high Sterols) indicates higher risk for heart attack and strokes. Normal value is below 100 units.

BLOOD CIRCULATION ANALYSIS: Category 1.3

Your Rating: ■ Excellent ☐ Good ☐ Fair ☐ Of Concern

When blood circulation is insufficient, the cells and tissues of the body do not receive their necessary life sustaining oxygen and nutrients. If this situation persists for a period of time, organic pathological changes begin to occur. Once these changes progress beyond a critical point, serious and irreversible medical conditions can occur: e.g., heart attack and strokes.

HEART RATE VARIABILITY (HRV): 139 ms

Your result is: ■ Normal ☐ Abnormal

HRV is a measure of the variation in the time between heart beats. In general, higher HRV (i.e., variability in the time between heart beats) is desirable; lower HRV has been found to be a significant predictor of cardiac mortality and morbidity.

IRREGULAR HEART BEAT

Irregular Heart Beat Detected: Yes ☐ No ■

Almost everyone has felt their heart beat very fast, felt a "fluttering" in their chest or thought that their heart was "skipping a beat." These are signs of abnormal irregular heart beat, and are extremely common, especially as you get older. This can occur in a healthy heart and be of minimal consequence. However, they also may indicate a serious problem; i.e., heart disease, stroke or sudden cardiac death.

FITNESS ASSESSMENT

WEIGHT: 203 pounds

Your Rating: ☐ Risky (too low) ☐ Excellent ■ Good ☐ Fair ☐ Needs Improvement

Overweight refers to an excess of body weight compared to set standards. The excess weight may come from muscle, bone, fat, and/or body water. Obesity refers specifically to having abnormally high proportion of body fat. A person can be overweight without being obese, as in the example of the bodybuilder or other athlete who has a lot of muscle. However, many people who are overweight are also obese.

BODY FAT

Your result is: 24.9% or 51# of fat that includes 10# of EXCESS fat

Your rating is: ☐ Risky (too low) ☐ Excellent ☐ Good ☐ Fair ■ Needs improvement

Some body fat is needed to protect your health (called *Essential Body Fat*). Some additional body fat supplies a reservoir of energy for performing various body functions (Called *Reserve Body Fat*). Any additional body fat (called *Excess Body Fat*) causes risk of serious health problems such as strokes, heart attacks, diabetes and certain forms of cancer.

NOTE: All measurements are provided for screening purposes only. They are not to be used for selecting or modifying any medications or treatment.

WELLNESS ASSESSMENT

HEMOGLOBIN: 8-9 mg/dL

Your result is: ☐ Normal ■ Abnormal ☐ Critically Abnormal

Measures the amount of hemoglobin in your red blood cells (RBCs). This is important because the amount of oxygen available to tissues depends upon how much oxygen is in the RBCs. Without sufficient hemoglobin, the tissues will lack oxygen and the heart and lungs must work harder to compensate.

BLOOD GLUCOSE: 90-110 mg/dL

Your result is: ■ Normal ☐ Borderline ☐ Abnormal

Glucose is a form of sugar that is the body's primary fuel; glucose is broken down from food into energy or stored. Abnormally low or high levels of glucose in the blood often indicate metabolic disturbances (e.g., diabetes).

PULSE OXIMETRY: 98%

Your result is: ■ Normal ☐ Abnormal

Oxygen is carried in the blood attached to hemoglobin modules. Pulse Oximetry is a measure of how much oxygen the blood is actually carrying as a percentage of the maximum amount it could carry. Normally a fit, healthy young person will have an oxygen saturation of 95-99%. This will vary with age, degree of fitness, etc.

CARATENOID LEVEL: 47%

Your result is: ☐ Normal ■ Abnormal

The scientific literature indicates that the carotenoid level contained within the skin is measure of protection from free radicals within your body as well as risks of sunburn and other skin damage.

MEMORY ASSESSMENT

MENTAL ACUITY TEST

Your Result is ■ Normal ☐ Abnormal ☐ Inconclusive

This test does not diagnose Alzheimer's Disease. However, it alerts the individual to visit his/her physician to determine if early stage Alzheimer's Disease is present when it is most treatable.

Visit www.HealthGuardClinic.com for additional info on your tests.

HEART DISEASE AND STROKE RISK FACTORS YOU CAN CONTROL

SMOKING According to the American Heart Association, smoking is the single most preventable cause of death in the United States. Smoker's' risk of heart attack is more than twice that of non-smokers. The nicotine and carbon monoxide, in tobacco smoke, damage blood vessel walls, causing plaque to build up. Furthermore, tobacco smoke may trigger blood clots to form. Smoking also promotes heart disease by reducing HDL ("good") cholesterol. Smoking is also the biggest risk factor for peripheral vascular disease, which is the narrowing of blood vessels carrying blood to leg and arm muscles. If you do smoke, get help to quit **NOW**. As soon as you stop smoking, your risk of heart disease starts to drop.

HIGH BLOOD PRESSURE High blood pressure makes the heart work harder than normal, causing it to enlarge (reducing efficiency) and weaken over time. High blood pressure raises the risk of heart attacks, strokes, kidney failure, eye damage, congestive heart failure and atherosclerosis. When high blood pressure exists with obesity, smoking, high blood cholesterol levels or diabetes, the risk of heart attack increases several times. Blood pressure can be modified by smoking cessation, weight loss, exercise, decreased salt consumption, stress reduction and medication.

HIGH BLOOD CHOLESTEROL Everyone age 20 and older should have their cholesterol measured at least once every year. A high blood cholesterol level (240 mg/dL or higher) is bad because cholesterol can build up in the walls of arteries. Narrowed arteries are more likely to become blocked, causing a heart attack or stroke. Recent studies show that even people at moderate risk of a heart attack – those with just two or more risk factors (high cholesterol, high blood pressure, overweight, family history of heart disease) - should lower their IDL (bad) cholesterol to below 100 mg/dL instead of the previously recommended 129 mg/dL. Cholesterol levels can be improved by reducing saturated and trans fats in your diet and by medication.

PHYSICAL INACTIVITY If physical inactivity is combined with overeating, then excess weight, higher blood cholesterol levels and diabetes can result. All of these raise the risk of heart disease. For most people, the American Heart Association recommends 30-60 minutes of moderate physical activity (such as walking, gardening, housework, dancing), on most days of the week, to condition the heart and lungs. The time can be broken into two or three periods per day.

OBESITY AND OVERWEIGHT Excess body fat (expecialy in the waist area) causes problems including: high blood pressure, high blood cholesterol, high triglycerides, diabetes, heart disease and stroke. If you're overweight, losing 10 to 20 pounds can hel lower your heart disease risk by reducing high blood pressure and total blood cholesterol. To lose weight, most women should eat 1200 to 1500 calories a day, men should eat 1500 to 1800 calories a day. Losing one to two pounds per week is considered healthy weight loss.

DIABETES MELLITUS Diabetes is a disease in which the body doesn't make or respond properly to the hormone insulin. The body needs insulin to convert sugar, starches and other foods into energy. Obesity and physical activity are two risk factors for type 2 diabetes, which often appears in middle aged adults. It can go undetected for many years, and if left untreated, leads to heart and blood vessel diseases. Even under control, diabetes increases the risk of heart disease and stroke because of the damaging effect it has on blood vessels. It's critically important for people with diabetes to have regular medical check-ups to help control it.

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This is one example for use of Futrex's non-invasive measurement technology in a kiosk.

YOUR HEALTH REPORT CARD

Thank you for participating in the HealthGuard Wellness Program. The inside pages of this folder summarize the results of your health/wellness screening. More detailed information is available to you on our web site: **www.HealthGuardClinic.com**. To use this site, simply enter your identification number given on the next page. If you have any questions about the specifics of the studies that were performed, you can ask your questions on the web site. You will receive an e-mail answer in less than 24 hours.

In reviewing the study results, please remember that not all long-term health problems will be reflected in an abnormal test result. Smoking and other lifestyle decisions can put you at increased risk of disease that will not always show abnormalcies on these tests. Nevertheless, it is assuring to know what the screening test showed. If you have any abnormalities, you should share this information with your doctor. (We do provide a special more detailed medical information for your doctor on another section of our web site.) Then you and your doctor can decide if any further evaluations are needed.

We do hope that you will continue to strive for good health and healthy lifestyle choices. Proper diet, adequate sleep, exercise, a positive outlook, and moderation in all things, are the keys to enjoying a rich life.

Thank you.

Dr. Robert Smith, HealthGuard Clinic's Medical Director