

Primary & Behavioral Healthcare Integration Health Indicator Data

Overview of RAND Criteria for the PBHCI Multisite Evaluation:

Physical health indicators are considered to fall in the “at risk” range when they exceed the values in the tables below. Being “at risk” indicates that a consumer is in need for further care.

Notes:

- For blood pressure (BP) “at risk” was operationally defined as at risk for metabolic syndrome, a group of risk factors associated with heart disease, cerebrovascular disease, and diabetes, and at risk values could be for either systolic blood pressure (SBP) or diastolic blood pressure (DBP).
- Two different kinds of tests were used to diagnose pre-diabetes. The fasting plasma glucose test measures glucose that is floating free in the blood after fasting, and only shows the blood glucose level at the time of the test. The glycated hemoglobin (Hgb) A1c test measures the amount of glucose attached to hemoglobin (the oxygen-carrying protein in red blood cells), and because the lifespan of red blood cells is approximately 120 days, HgbA1c reflects long term glycemic exposure, representing the average glucose concentration over the preceding 8-12 weeks. While plasma glucose test measures at the time of testing and the HgbA1c measures longer term risk, there is no consensus as to which test is more accurate in diagnosing pre-diabetes.
- High-density lipoprotein (HDL) cholesterol, low-density lipoprotein (LDL) cholesterol and triglycerides, when in the “at risk” range, indicate risk for heart disease.
- Breath CO is a measure of whether the person has smoked in approximately the last 6-8 hours and is strongly influenced by the person’s size, health status, and other factors.

Below are ranges of values used by professional organizations to categorize physical health data. This information may help you to understand your physical health indicators data.

H Indicator Quick Guide	
	"At Risk" ranges
Blood Pressure (Systolic/Diastolic) (mm Hg)	≥130(Systolic) and/or ≥85(Diastolic)
Waist circumference (cm)	>102(men) >88(women)
Body Mass Index (BMI)	≥25
Breath CO (ppm)	≥10
Plasma glucose (fasting)	≥100
HgbA1c (mg/dL)	≥5.7
HDL Cholesterol (mg/dL)	<40
LDL Cholesterol (mg/dL)	≥130
Tri-glycerides (mg/dL)	≥150

Body Mass Index (BMI)

Source: [World Health Organization Global Database on BMI \(2004\)](#)

Under Weight	<18
Normal Weight	18-24
Over Weight	25-29
Obese	30-39
Morbidly Obese	40+

Blood Pressure (BP)

Source: [Understanding BP Readings, American Heart Association \(2012\)](#)

Systolic (SBP) (mm Hg)

Normal	<120
Prehypertension	120-130
Hypertension (Stage 1)	140-159
Hypertension (Stage 2)	160 -180
Hypertensive Crisis	>180

Diastolic (DBP) (mm Hg)

Normal	< 80
Prehypertension	80-90
Hypertension (Stage One)	90-99
Hypertension (Stage Two)	100>
Hypertensive Crisis	>100

Triglycerides (mg/dL)

Source: [Triglycerides and Cardiovascular Disease : A Scientific Statement From the American Heart Asso. \(2011\)](#)

Desirable	<150
Borderline High	150-199
High	200-499
Very High	500+

Low-Density Lipoprotein (LDL) Cholesterol (mg/dL)

Source: [Implications of Recent Clinical Trials for the National Cholesterol Education Program \(2004\)](#)

Ideal	<100
Near Ideal	100-129
Borerline High	130-159
High	160-189
Very High	190 +

High-Density lipoprotein (HDL) Chlesterol(mg/dL)

Source: [Implications of Recent Clinical Trials for the National Cholesterol Education Program \(2004\)](#)

Poor	<=40
Better	41-59
Best	60+

Glycated Hemoglobin (HbgA1c)(mg/dL)

Source: [Implications of Recent Clinical Trials for the National Cholesterol Education Program \(2004\)](#)

Normal	<5.7%
At Risk	5.7-6.4%
High Risk	6.4% +

Fasting Plasma Glucose(mg/dL)

Source: [Implications of Recent Clinical Trials for the National Cholesterol Education Program \(2004\)](#)

Normal	< 100
At Risk	100-125
High Risk	126+

Waist Circumference (cm)

Source: [World Health Organization Waist Circumference & Waist-hip Ratio: Expert Consultation Report, Geneva \(2008\)](#)

Increased Risk Men	≥ 94
At Risk Men	≥ 102

Increase Risk Women	≥ 80
At Risk Women	≥ 88

Breath Carbon Monoxide (CO) (ppm)

Source: [Middleton & Morice \(2000\). Breath CO as an Indication of Smoking Habit. Chest, 758-63.](#)

Low (Non-smoker)	0-6
Increased Risk (Smoker)	7-9
At Risk (Regular Smoker)	10-19
At High Risk (Heavy Smoker)	20+