

**HELPING HYPERTENSION PATIENTS
TO INTERPRET BLOOD PRESSURE READINGS
AND MOTIVATE BLOOD PRESSURE CONTROL**

Study protocol, statistical analysis plan, and informed consent form

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Social Behavioral Protocol Template
(as approved by USC IRB #UP21-00023)

Study Title: Helping hypertension patients to interpret blood pressure readings and motivate blood pressure control

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Study Procedures

1. Background/Rationale (previously iStar section 11 (exempt) or 12 (expedited/full board))
Hypertension is a major modifiable risk factor for cardiovascular disease, and a leading cause of death worldwide. Lifetime risk of hypertension is 70-90%, but it is higher among adults who are older and of low socio-economic status (SES). Older age and lower SES are also associated with low health literacy, which undermines understanding of health information. Yet, low health literacy in hypertension patients is an independent predictor of poor blood pressure control, with only about 50% of hypertension patients having controlled blood pressure. Possibly, patients with lower health literacy find it harder to interpret whether blood pressure readings are high or low, reflect good or bad blood pressure control, and indicate a need for behavior change or medication use. Even college-educated hypertension patients who have bought home blood pressure monitors may struggle to interpret blood pressure readings that are outside the normal range, undermining their intentions to improve their blood pressure control.

BEHAVIORAL SCIENCE INSIGHT

Lab studies in behavioral science have found that individuals' ability to interpret numbers (likely including blood pressure readings) is improved by showing the range or distribution – also called 'reference information'. In preliminary work, the PI showed that many people struggle to interpret credit card APRs, because they do not know what numbers are good or bad. In line with the behavioral science insight, the PI found that providing graphs with ranges of existing APRs helped recipients to see which credit cards posed a bad deal, and reduced their intentions to get such credit cards. It has been posited that providing reference information (e.g. normal and abnormal blood pressure ranges) should also help hypertension patients to interpret blood pressure readings, and help them to control their blood pressure.

If reference information is used when communicating blood pressure readings in clinics and online health records, it often involves a basic table that only shows the normal range (e.g., <120 for systolic and <80 for diastolic blood pressure). In one behavioral science study, 106 university staff performed similarly when using this

basic table or when using a color-coded horizontal bar graph (showing the normal range in white and values outside the normal range in black). However, neither format followed the American Heart Association's communication, which shows more reference information for interpreting blood pressure readings outside of the normal range. Hypertension patients may need to see such enhanced reference information, because they are more likely to encounter blood pressure readings outside of the normal range. Moreover, those readings can be harder to interpret – perhaps especially for hypertension patients with low health literacy. The investigators propose to evaluate 2 formats for providing the more enhanced reference information from the American Heart Association, in either a table (as used by the American Heart Association), or a graph (as used by Blood Pressure UK, to be adapted to show the information from the American Heart Association). The behavioral science literature suggests that tables facilitate reading specific numbers, but that graphs help more with interpreting numbers as high or low, and good or bad – though that could depend on recipients' health literacy.

2. Purpose/Objectives/Aims/Research Questions (previously iStar section 11 (exempt) or 12 (expedited/full board))

Aim 1: Based on existing communications, and the PI's communication expertise, the investigators will generate 3 blood pressure communications:

- (A) a basic table showing only the normal range, which is often used but may make it hard to interpret numbers outside of the normal range, potentially undermining behavior change intentions;
- (B) an enhanced table with more reference information, showing how combinations of diastolic and systolic blood pressure reflect normal, elevated and hypertension ranges, from the American Heart Association;
- (C) an enhanced graph to be adapted from Blood Pressure UK to show the same color-coded ranges as the enhanced table, with diastolic blood pressure on the x-axis and systolic blood pressure on the y-axis.

Aim 2: In a sample of 650 diagnosed hypertension patients recruited through the Pitt+Me Patient Registry at the University of Pittsburgh Medical Center (UPMC), the investigators will evaluate whether being presented with the enhanced table or graph (vs. basic table) increases the likelihood of self-reported blood pressure measurement, and improves interpretations of blood pressure readings and behavior change intentions.

Aim 3: The investigators will examine whether Aim 2 findings vary by health literacy, age, and SES.

3. Participants (sample) (Consistent with iStar sections 10 (expedited and full board) and 22 (for all submission types))

- The sample will include 625 diagnosed hypertension patients (age 18 and older and proficient in English) recruited through the Pitt+Me Patient Registry at the University of Pittsburgh Medical Center.
- Inclusion criteria include diagnosis with high blood pressure or hypertension, age 18 and up, being able to understand and read English.
- Children and minors under the age of 18 are not included because children and adolescents require different blood pressure communications than those tested in this study. This is due to these age groups facing different challenges in blood pressure monitoring, and the normal range being different for younger individuals than for adults.

- Employees or students, pregnant women, prisoners and detainees, and military personnel will not be explicitly targeted by this study and are unlikely to be reached through the Pitt+Me Patient Registry. However, if they happen to access an invitation to the study through the Pitt + Me Patient Registry, they will also not be excluded from this study, as long as they meet eligibility criteria.
- Adults who are not competent to consent and non-english speaking populations will not be included in the study. English language proficiency is one of the inclusion criteria because this study involves a self-administered online survey in English.

4. Recruitment/Screening Process (sampling strategy)

- Participants will be recruited through the Pitt + Me Patient Registry at the University of Pittsburgh in Pittsburgh Pennsylvania. The study involves a self-administered online survey, so participants can access the online survey from their preferred location.
- Participants will be recruited by the Pitt + Me Patient Registry, through email and online advertisements targeting Pitt + Me Patient Registry members who are hypertension patients, 18+ years of age and able to read and understand english.
- The Pitt + Me Patient Registry will use email and online advertisements for recruitment. Participants will receive a link to our online survey, which will start with an information sheet followed by an online screener in which they will be asked to confirm that they have been diagnosed with hypertension, are 18+ years old, and are proficient in English. The information sheet and the screener questions have been submitted to the IRB as part of the uploaded survey.
- In the screener questions, participants will be asked to report whether they have been told by a doctor or nurse that they have hypertension (yes/no/don't know), their age, and whether they are able to read and understand English (yes/no). They will be invited to proceed to the survey if they meet the eligibility criteria of a hypertension diagnoses, being at least 18 years old, and being able to read and understand English.
 - The full survey including the screening questions has been uploaded to Istar.
 - Participants will receive an information sheet before they are screened, which is also part of the survey we have uploaded to Istar.

5. Methods (previously iStar sections 9, 12, or 13, 16, 19, 20, and 21 depending on the type of study/application)

- Provide a detailed description of the project from start to finish. Use lay language, as if you were describing your study to a potential participant.
 - Participants will be recruited through emails and online advertisements from the Pitt+Me Registry. They will be entitled: "Blood pressure survey." They will read: "This online survey asks about your blood pressure and what you think about communications about blood pressure readings. The online survey will take about 20 minutes to complete. Eligible participants must have been diagnosed with hypertension, be 18 years of age, and be able to read and understand English. Age: 18 and up. Duration: About 20 minutes. Visits: No in-person visits. Location: online survey. Compensation: \$10 gift card" Further information will state: Study basics: Do you have high blood pressure or hypertension? You are invited to answer an online survey about blood pressure readings. You will also be asked what you think about communications about blood pressure readings. The online survey will take

about 20 minutes. Eligible participants will have been told by a doctor or nurse that they have high blood pressure or hypertension, must be at least 18 years old, and must be able to read and understand English. Study Purpose: This study aims to help you and others to interpret blood pressure readings. The researchers hope to make blood pressure readings easier to understand. Could this study be right for you: - Ever been told by a doctor or nurse that you have high blood pressure or hypertension. – Ages 18 and up. – Able to read and understand English. What participants can expect: Participation involves completing an online survey about blood pressure readings. USC IRB: UP-21-00023] Research Areas: Heart and Circulation, Blood/Lymphatic System. Meet the Researcher. The photo, name, job title, and research of the PI and her collaborator at the University of Pittsburgh will be included.

- ii. After clicking on the link to the online survey, participants will receive the information sheet that is part of the survey we have uploaded to Istar. They will then receive the screening questions that ask about diagnosis with high blood pressure or hypertension, age, and proficiency in English. Eligible participants will be randomly assigned to one of three blood pressure communications as part of an online survey, which can be seen as part of the survey we have uploaded to Istar. Subsequent questions ask for responses to and interpretations of the communications, including willingness to measure own blood pressure, followed by questions about familiarity with communications about blood pressure, experience with high blood pressure, health literacy, color blindness and demographics such as age and SES. After completing the survey, participants will receive a link to another survey in which they will fill in their email address so that we can email them a \$10 Amazon gift certificate. Participants can also indicate whether they want to receive a description of the findings, once they are available. At the end of the survey, participants will receive a link to information from the American Heart Association about how to control their blood pressure. In the unlikely event that any participants report blood pressure numbers that reflect a hypertensive crisis ((systolic BP \geq 180mmHg or diastolic BP \geq 120 mgHg), they will immediately receive the message “Based on American Heart Association blood pressure values of 180/120 mm Hg or higher reflect a hypertensive crisis for most people. You have reported blood pressure of 180/120 mm Hg or higher. Please call 911 immediately and seek emergency care. Upon return from the medical treatment of this event, please call (412) 638-5875 to notify our study staff.”
- iii. No questions will be asked or uncovered about participants’ suicidality.
- iv. We will not be collecting personal identifiable information as part of the survey. The Pitt + Me Registry will be sending our advertisements to their members, but we will not have access to their personal information or their contact information. Hence our survey will be anonymous. After completing the survey, we will ask participants for their email address so that we can send them a but that information will not be kept with their data. Thus, the survey data will not be labeled with any personal identifying information such as name, email address, or IP address, or a code that the research team can link to personal identifying information. Email addresses will be deleted after the study has closed and all participants have been paid and the results of the study emailed to interested participants.
- v. Anonymized data will be kept on pass-word protected computers.

- vi. Findings will be reported on clinicaltrials.gov (<https://clinicaltrials.gov/ct2/show/NCT04485637>). They will also be written up for submission to a peer-reviewed journal and peer-reviewed conferences. Participants who have indicated an interest in receiving the findings will receive them via email.
- b. Instrumentation
 - i. Questionnaires/Survey Measures (names and citations)
 - A. Our survey questions have been developed by the PI, Co-I, and team, and adapted from the PI's previous work on understanding graphical communications in other contexts (Chin A, Bruine de Bruin, W. JEP:Applied 2019; 25: 77-87). Health literacy will be assessed with a validated measure (Chew LD, et al. Fam Med 2004; 36: 588-594).
 - ii. Qualitative instruments
 - A. The only open-ended questions on the survey will ask participants to fill in blood pressure readings. No open-ended text responses are requested.
- c. Data Analysis
 - i. Data analysis of the anonymous dataset will be conducted in SPSS to test whether Briefly describe how the data analysis will be conducted. We will evaluate the relative effect of the 3 communications on the likelihood of measuring blood pressure, and understanding and interpretations of blood pressure readings, and behavior change intentions, and assess interactions with health literacy, age and SES. We will control for other demographics, hypertension diagnosis date, familiarity with blood pressure readings, and color blindness. Linear regressions will be used for continuous dependent variables and logistic regressions for dichotomous dependent variables.
 - ii. If conducting secondary data analysis from a data set obtained from an existing data source, upload the data collection form(s) identifying the variables to be captured and analyzed in iStar section 13.

Also uploaded onto istar: The full survey including information sheet and screener questions.

INFORMATION SHEET (CONSENT)

Purpose of the research: We aim to find out how to make blood pressure readings easier to interpret.

Procedures: This online survey asks about your blood pressure. You will also be asked what you think about information about blood pressure readings.

Duration: The online survey will take about 20 minutes to complete.

Discomfort and risks: It is possible that you do not want to answer some of the questions. If you do not want to answer a question, you can skip it.

Potential benefits: We aim to help you and others to interpret blood pressure readings.

Statement of confidentiality: All of your answers will be confidential. At the end of the survey, we will ask you for your email address so that we can send you a \$10 Amazon gift voucher. We will only use your email address to send you this \$10 gift voucher. If you want to see the results of our survey, we will also email that to you. We will not send you more email than that. We will not share your email address with anyone else.

Costs of participation: None.

Compensation for participation: You will receive a \$10 Amazon electronic gift voucher for completing the survey.

Research funding: USC Roybal Center for Behavioral Interventions in Aging, with support from the National Institute on Aging.

Voluntary participation: Taking part in this survey is voluntary. You may stop answering the survey at any time.

Principal Investigator: Wändi Bruine de Bruin, University of Southern California at (412) 638-5875 or email wandibdb@usc.edu

IRB: If you have any questions about your rights as a research participant, please contact the University of Southern California Institutional Review Board at (323) 442-0114 or email irb@usc.edu.

☐ I agree to participate.

☐ I do not agree to participate.

[Skip to end of survey if participant does not agree to participate]

ELIGIBILITY QUESTIONS

How old are you? _____

Have you ever been told by a doctor or nurse that you have high blood pressure or hypertension?

- ☐ Yes
- ☐ No
- ☐ Don't know

Are you able to read and understand English?

- ☐ Yes
- ☐ No

[Skip to end of survey if participant is younger than 18, does not report having hypertension, or is unable to read and understand English]

QUESTIONNAIRE

Are you currently taking medication to control your blood pressure?

- ☐ Yes, I am taking medication as prescribed
- ☐ Yes, but I am not taking medication as prescribed
- ☐ No, I am not taking any medication

Approximately when was the last time your blood pressure was taken?

- ☐ Within the last week
- ☐ Between a week and a month ago
- ☐ Between 1-2 months ago
- ☐ Between 3-6 months ago
- ☐ More than 6 months ago
- ☐ I don't know

Do you remember what your last blood pressure reading was?

- ☐ Yes
- ☐ No

[Skip next question if answer is no]

What was your last blood pressure reading?

Blood pressure is recorded as two numbers. The first number is higher and reflects what is called "systolic blood pressure." The second is lower and reflects what is called "diastolic blood pressure."

Please fill in your best guess:

- ☐ Upper number (Systolic blood pressure)

- ☐ Lower number (Diastolic blood pressure)

Do you know approximately what is considered normal or healthy blood pressure for most adults?

- ☐ Yes
- ☐ No

[Skip next question if answer is no]

What would you say is normal or healthy blood pressure for most adults? Blood pressure is recorded as two numbers. The first number is higher and reflects what is called "systolic blood pressure." The second is lower and reflects what is called "diastolic blood pressure." Please fill in your best guess.

- ☐ Upper number (Systolic blood pressure)

- ☐ Lower number (Diastolic blood pressure)

Please take a careful look at the following information from the American Heart Association. You will receive several questions about it.

[Random assignment to basic communication, enhanced table, or enhanced graph]

Condition: Basic Communication

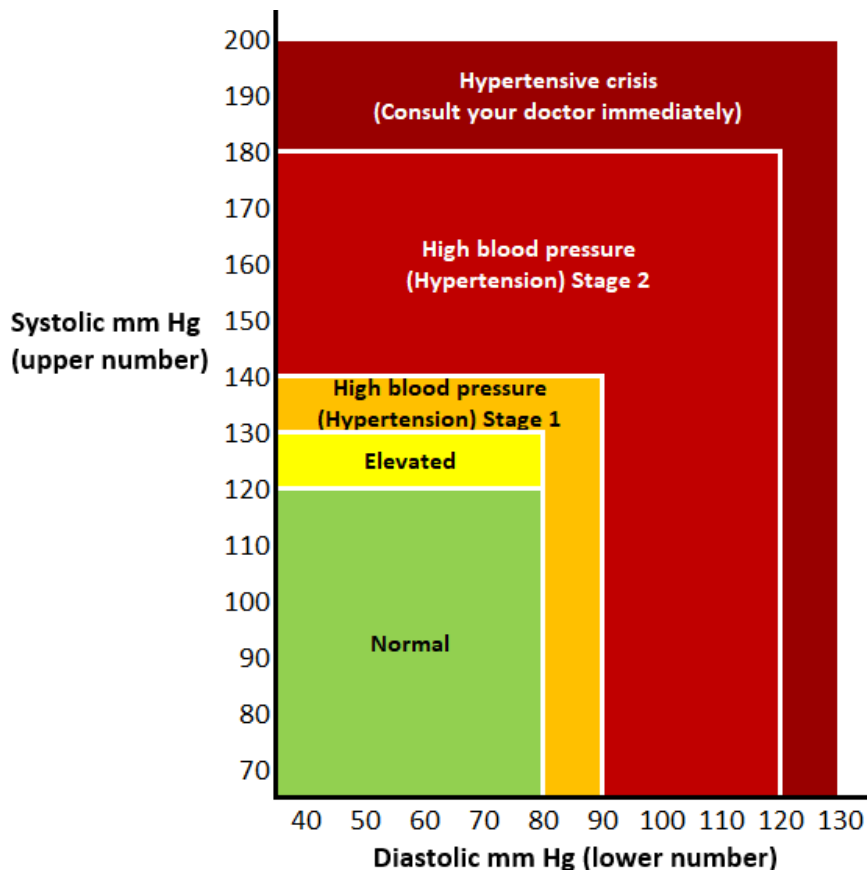
NORMAL BLOOD PRESSURE

Systolic (upper number): less than 120 MM Hg
Diastolic (lower number): less than 80

Condition: Enhanced Table

BLOOD PRESSURE CATEGORY	SYSTOLIC MM Hg (upper number)		DIASTOLIC MM Hg (lower number)
Normal	Less than 120	and	Less than 80
Elevated	120-129	and	Less than 80
High blood pressure (Hypertension) Stage 1	130-139	or	80-89
High blood pressure (Hypertension) Stage 2	140 or higher	or	90 or higher
Hypertensive crisis (Consult your doctor immediately)	Higher than 180	and/or	Higher than 120

Condition: Enhanced Graph



After seeing this communication, do you want to take a moment to measure your blood pressure?

- ☐ Yes, I'm going to measure my blood pressure before I answer the rest of the survey
- ☐ No, but I will measure my blood pressure later today
- ☐ No, I will not measure my blood pressure today

[Skip next question if answer is no]

Please measure your blood pressure twice.

Sit still for 5 minutes. Then take the first blood pressure reading, then wait 1 minute and retake your blood pressure.

While taking your blood pressure, don't talk. keep your cuffed arm on a flat surface, like a table, and at heart level. Sit upright, back straight, feet flat on the floor.

Would you like to enter the first blood pressure measurement?

- ☐ Yes, I would like to enter it.
- ☐ No, I do not want to enter it.

[Skip next question if answer is no]

What was your first blood pressure reading?

Blood pressure is recorded as two numbers. The first number is higher and reflects what is called "systolic blood pressure." The second is lower and reflects what is called "diastolic blood pressure."

Please fill in your best guess:

- ☐ Upper number (Systolic blood pressure)

- ☐ Lower number (Diastolic blood pressure)

[Skip to "Based on American Heart Association... if systolic blood pressure is greater than or equal to 180 or diastolic is greater than or equal to 120]

Would you like to enter the second blood pressure measurement?

- ☐ Yes, I would like to enter it.
- ☐ No, I do not want to enter it.

[Skip next question if answer is no]

What was your second blood pressure reading?

Blood pressure is recorded as two numbers. The first number is higher and reflects what is called "systolic blood pressure." The second is lower and reflects what is called "diastolic blood pressure."

Please fill in your best guess:

☐ Upper number (Systolic blood pressure)

☐ Lower number (Diastolic blood pressure)

[Skip to "Based on American Heart Association... if systolic blood pressure is greater than or equal to 180 or diastolic is greater than or equal to 120]

Based on American Heart Association blood pressure values of 180/120 mm Hg or higher reflect a hypertensive crisis for most people. You have reported blood pressure of 180/120 mm Hg or higher. Please call 911 or seek emergency medical care. Once you've addressed this potential hypertensive crisis, please contact us by calling (412) 638-5875 so you can continue the study survey."

Would you be able to tell us what you think your own blood pressure is right now?

☐ Yes

☐ No

[Skip next question if answer is no]

What do you think your own blood pressure is right now?

Blood pressure is recorded as two numbers. The first number is higher and reflects what is called "systolic blood pressure." The second is lower and reflects what is called "diastolic blood pressure."

Please fill in your best guess:

☐ Upper number (Systolic blood pressure)

☐ Lower number (Diastolic blood pressure)

Please indicate whether or not you think the following blood pressure readings are considered normal.

Do you think blood pressure of 118/78 mm Hg is considered normal?

- ☐ Yes
- ☐ No
- ☐ Don't know

Do you think blood pressure of 119/81 mm Hg is considered normal?

- ☐ Yes
- ☐ No
- ☐ Don't know

Do you think blood pressure of 122/74 mm Hg is considered normal?

- ☐ Yes
- ☐ No
- ☐ Don't know

Do you think blood pressure of 132/69 mm Hg is considered normal?

- ☐ Yes
- ☐ No
- ☐ Don't know

Do you think blood pressure of 142/91 mm Hg is considered normal?

- ☐ Yes
- ☐ No
- ☐ Don't know

In your mind, how healthy is your own blood pressure right now?

	Very Unhealthy	2	3	4	Very Healthy
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your mind, how healthy are the following blood pressure readings?

	Very Unhealthy	2	3	4	Very Healthy
In your mind, how healthy is a blood pressure reading of 118/78 mm Hg?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In your mind, how healthy is a blood pressure reading of 119/81 mm Hg?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In your mind, how healthy is a blood pressure reading of 122/74 mm Hg?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In your mind, how healthy is a blood pressure reading of 132/69 mm Hg?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In your mind, how healthy is a blood pressure reading of 142/91 mm Hg?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

According to the American Heart Association, blood pressure can be controlled by making healthy changes, such as eating a diet high in fruit and vegetables, reaching and maintaining a healthy weight, getting regular physical activity, limiting salt intake, limiting alcohol intake, and quitting the use of tobacco products.

Please indicate which of these changes you have already made to control your blood pressure:

	Yes	No
I eat a diet high in fruit and vegetables (5-7 servings a day)	<input type="radio"/>	<input type="radio"/>
I have reached and maintained a healthy weight (BMI between 18.5-24.9)	<input type="radio"/>	<input type="radio"/>
I get regular physical activity (90-150 minutes of moderate-intensity exercise per week)	<input type="radio"/>	<input type="radio"/>
I limit my salt intake (under 1,500 mg a day)	<input type="radio"/>	<input type="radio"/>
I limit my alcohol intake (no more than 1-2 drinks a day)	<input type="radio"/>	<input type="radio"/>
I avoid tobacco products (6)	<input type="radio"/>	<input type="radio"/>
I work with my doctor on managing my blood pressure (7)	<input type="radio"/>	<input type="radio"/>

	Very Unlikely	2	3	4	Very Likely
Given what I think my blood pressure is right now, I would make at least one of the healthy changes mentioned above.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you had the following blood pressure readings right now, then how likely would you be to make at least one of the healthy changes mentioned above?

	Very Unlikely	2	3	4	Very Likely
If my blood pressure were 118/78 mm Hg right now, I would make at least one of the healthy changes mentioned above.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my blood pressure were 119/81 mm Hg right now, I would make at least one of the healthy changes mentioned above.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my blood pressure were 122/74 mm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hg right now,
I would make
at least one of
the healthy
changes
mentioned
above.

If my blood
pressure were
132/69 mm
Hg right now,
I would make
at least one of
the healthy
changes
mentioned
above.

If my blood
pressure were
142/91 mm
Hg right now,
I would make
at least one of
the healthy
changes
mentioned
above.



	Very Unlikely	2	3	4	Very Likely
Given what I think my blood pressure is right now, I would reach out to my doctor about starting or adjusting medication to control my blood pressure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you had the following blood pressure readings right now, then how likely would you be to reach out to your doctor immediately about starting or adjusting medication to control your blood pressure?

	Very Unlikely	2	3	4	Very Likely
If my blood pressure were 118/78 mm Hg right now, I would reach out to my doctor immediately about starting or adjusting medication to control my blood pressure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my blood pressure were 119/81 mm Hg right now, I would reach out to my doctor about starting or adjusting medication to control my blood pressure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If my blood pressure were 122/74 mm Hg right now, I would reach out to my doctor about starting or adjusting medication to control my blood pressure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If my blood pressure were 132/69 mm Hg right now, I would reach out to my doctor about starting or adjusting medication to control my blood pressure.



If my blood pressure were 142/91 mm Hg right now, I would reach out to my doctor about starting or adjusting medication to control my blood pressure.



The following questions ask how hard or easy it generally is for you to understand health information.

In general, how hard or easy is it for you to understand blood pressure readings?

- ☐ Very hard
- ☐ Somewhat hard
- ☐ Neutral
- ☐ Somewhat easy
- ☐ Very easy

How often do you have problems learning about your medical condition because of difficulty understanding written information?

- ☐ Never
- ☐ Occasionally
- ☐ Sometimes
- ☐ Often
- ☐ Always

How confident are you filling out medical forms by yourself?

- ☐ Extremely
- ☐ Quite a bit
- ☐ Somewhat
- ☐ A little bit
- ☐ Not at all

How often do you need to have someone help you when you read instructions, pamphlets or other material from your doctor's office or hospital?

- ☐ Never
- ☐ Occasionally
- ☐ Sometimes
- ☐ Often
- ☐ Always

The following questions ask about you and your background.

To the best of your memory, in which year were you diagnosed with high blood pressure or hypertension?

Before you did this survey today, have you measured your own blood pressure?

- ☐ Yes, in the past month
- ☐ Yes, but not in the past month
- ☐ No

Has a doctor or nurse given you a target blood pressure goal?

- ☐ Yes
- ☐ No
- ☐ Don't know

[Skip next question if no blood pressure goal or don't know]

Would you be able to tell us your target blood pressure goal given by your doctor or nurse?

- ☐ Yes
- ☐ No

[Skip next question if no]

What did your doctor say is your target blood pressure goal?

Blood pressure is recorded as two numbers. The first number is higher and reflects what is called "systolic blood pressure." The second is lower and reflects what is called "diastolic blood pressure."

Please fill in your best guess:

☐ Upper number (Systolic blood pressure)

☐ Lower number (Diastolic blood pressure)

Are you color blind?

- ☐ No, not color blind
- ☐ Yes, Red/Green color blind
- ☐ Yes, Blue/Yellow color blind
- ☐ Yes, total color blind
- ☐ Yes, color blind (but not sure which kind)
- ☐ Don't know

What was your sex assigned at birth?

- ☐ Female
- ☐ Male
- ☐ Intersex
- ☐ Prefer not to say

How would you describe yourself?

- ☐ Woman
- ☐ Man
- ☐ Non-binary
- ☐ Prefer not to say

What is the highest level of education you have completed?

- ☐ Less than 1st grade
- ☐ Up to 4th grade
- ☐ 5th or 6th grade
- ☐ 7th or 8th grade
- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade – no diploma
- ☐ High-school graduate or GED
- ☐ Some college – no degree
- ☐ Associate college degree – occupational/vocational program
- ☐ Associate college degree – academic program
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional school degree
- ☐ Doctorate degree

What is your race/ethnicity? Please check all that apply.

- ☐ American Indian or Alaskan native
- ☐ Asian
- ☐ Black or African-American
- ☐ Hispanic, Latino, or Spanish
- ☐ Native Hawaiian or Pacific Islander
- ☐ White
- ☐ Other, please specify: _____

What is your annual family income?

- ☐ Less than \$5,000
- ☐ 5,000 to 7,499
- ☐ 7,500 to 9,999
- ☐ 10,000 to 12,499
- ☐ 12,500 to 14,999
- ☐ 15,000 to 19,999
- ☐ 20,000 to 24,999
- ☐ 25,000 to 29,999
- ☐ 30,000 to 34,999
- ☐ 35,000 to 39,999
- ☐ 40,000 to 49,999
- ☐ 50,000 to 59,999
- ☐ 60,000 to 74,999
- ☐ 75,000 to 99,999
- ☐ 100,000 to 149,999
- ☐ 150,000 or more

How many people live in your household, including you?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ More than 8