



Learning Objectives

- Identify the symptoms and signs of high blood pressures
- Describe how hypertension can be measured in the body
- Encourage patients to control and manage their high blood pressure
- Understand the principal barriers face by patients in control their high blood pressure

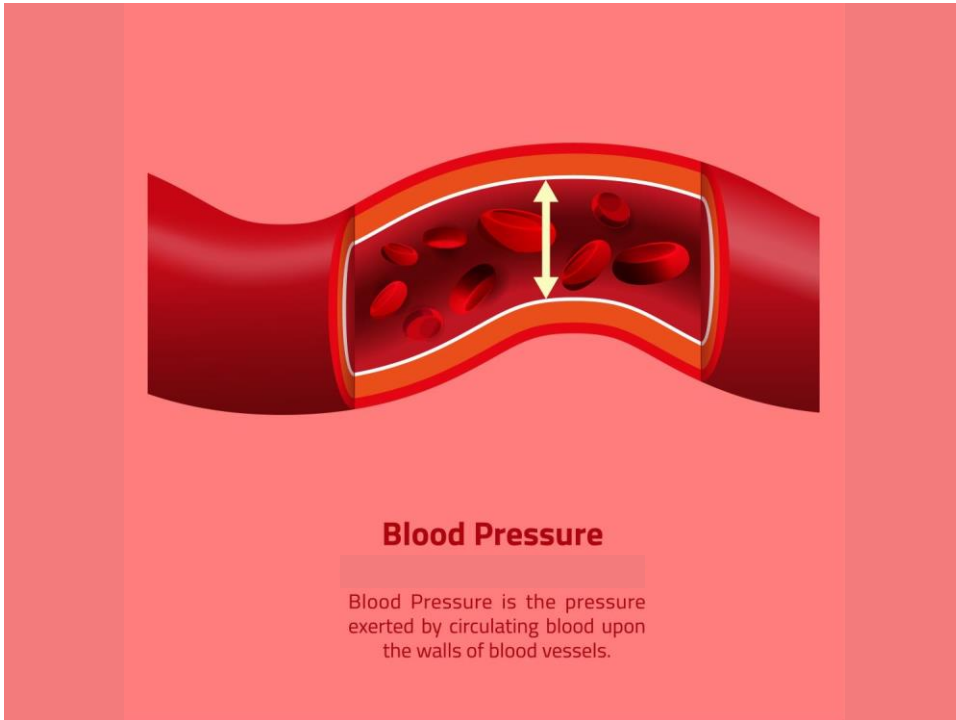


Overall Goal



Helping the community to control hypertension with the participation of community champions and the clinical team.



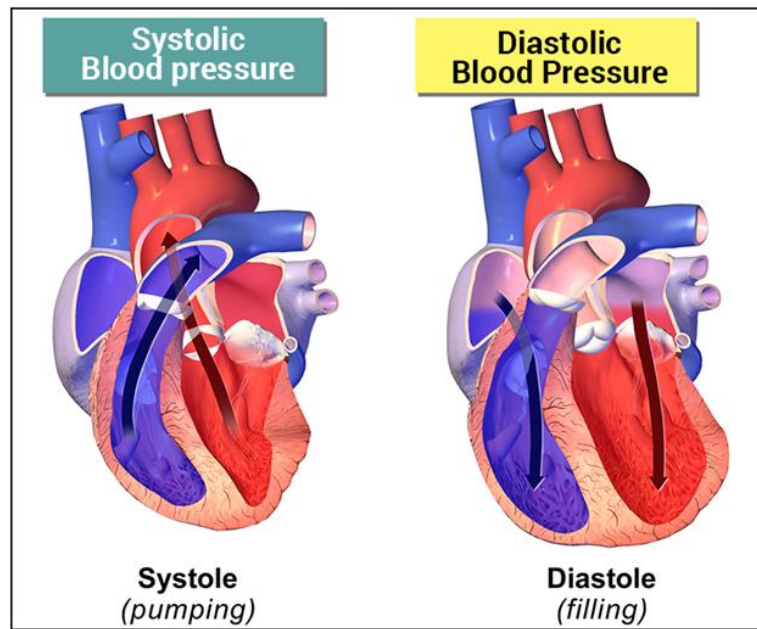


High blood pressure, called hypertension, happens when this force is too high.

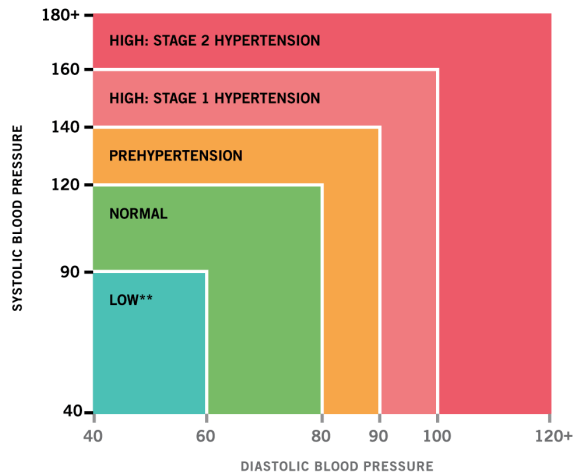


Hypertension ^{1, 2}

The classification of blood pressure is the **average of two or more** readings each **taken at two or more** visits after initial screening for adults aged 18 years or older.



Blood Pressure Chart*



*The data used in this chart come from the "Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure" (<http://www.nhlbi.nih.gov/guidelines/hypertension/>).

**In general, having lower than normal (120/80) blood pressure is a good thing, but you should consult your doctor or caregiver if you feel your blood pressure is too low and/or you are experiencing symptoms of [hypotension](#).

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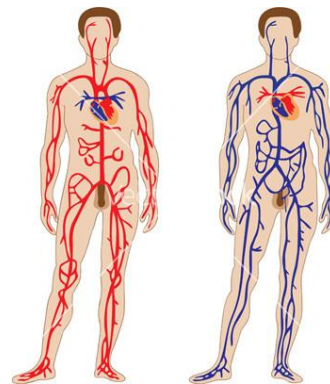
www.vertex42.com/ExcelTemplates/blood-pressure-chart.html

Arterial Pressure

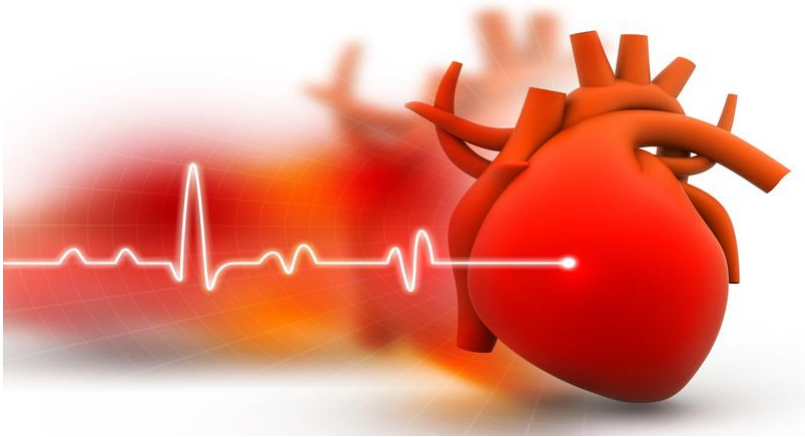
The overall function of the cardiovascular system is to deliver blood to the tissues so that Oxygen and nutrients can be provided and waste products carried away. Blood flow to the tissues is driven by the differences in pressure between the arterial and venous sides of the circulation.

Linda S. Constanzo

Physiology 8th edition



Causes of Hypertension



Genetic

Defect in regulatory systems; defects in renal excretion of sodium. African American are significantly more likely to be hypertensive than are individuals of other races.

Lifestyle



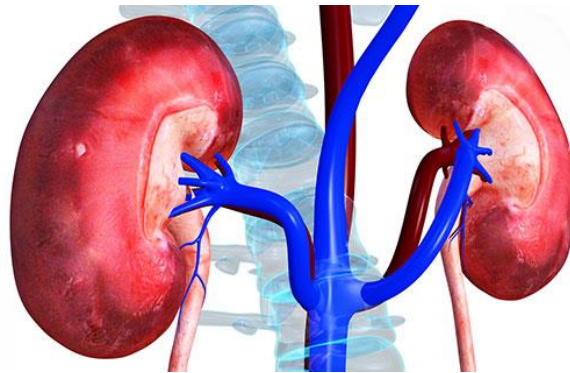
Obesity



Nutrition

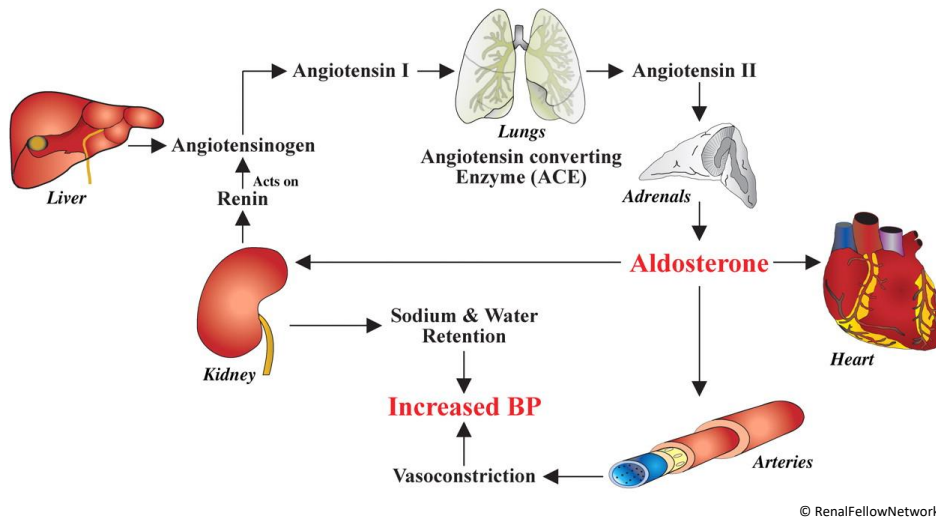


Addictions



Secondary to kidney and other diseases.
When blood vessels narrow in the
kidneys, possibly causing kidney failure.

Renin-angiotensin-aldosterone system (RAAS): this system regulates blood pressure slowly regulating blood volume. ³



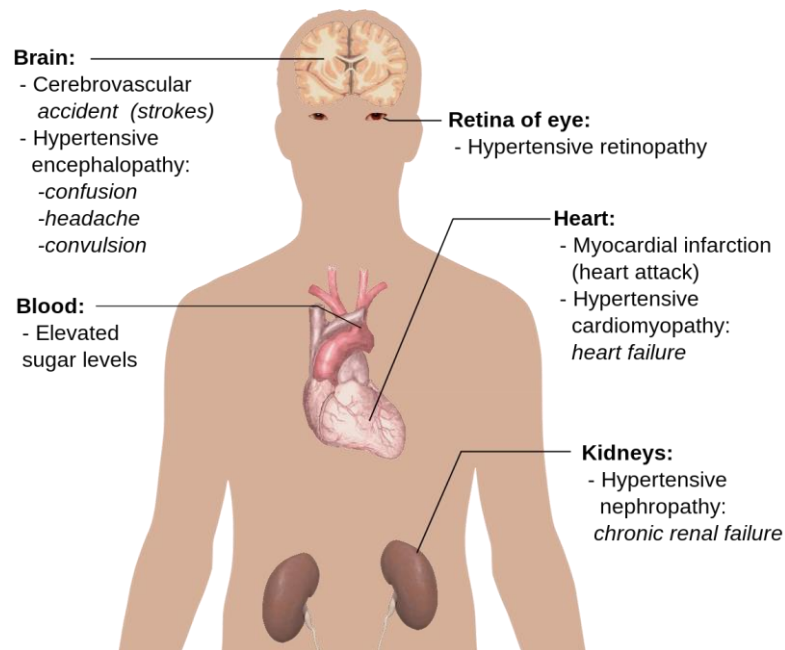
Chronic Hypertension

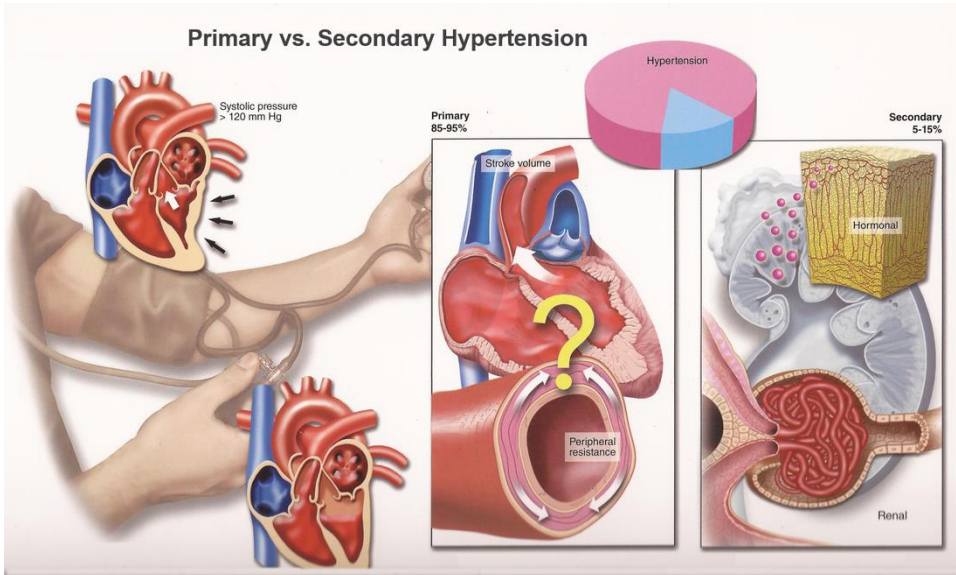
- Sensitivity of the baroreceptors can be altered by disease.
- Increase in Sodium intake which in turn activates Renin-angiotensin system and Blood pressure is elevated.



Hypertension is the most frequently treated cardiovascular disease.

Main complications of persistent
High blood pressure





Management of Hypertension ⁴

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Medical Treatment of Hypertension

- Diuretics (Water or Fluid Pills)
- Beta Blockers
- Angiotensin-Converting Enzyme (ACE) Inhibitors
- Angiotensin II Receptor Blockers (ARBs)
- Calcium Channel Blockers
- Alpha Blockers
- Alpha-Beta Blockers
- Central Acting Agents
- Vasodilators

Preventing high
blood pressure
involves
lifelong lifestyle
changes



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Healthy Eating



Physical Activity



Maintaining a Healthy Weight

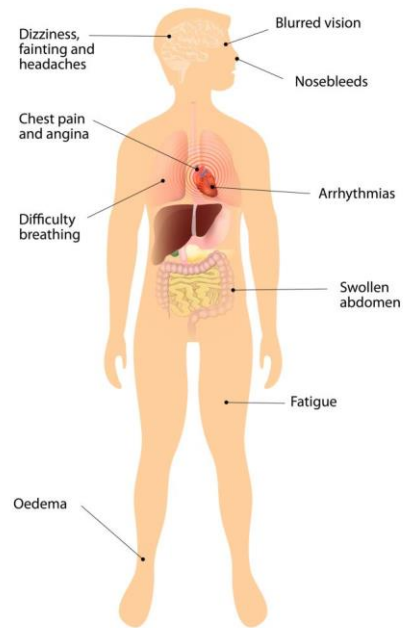


Limit
Alcohol



High blood pressure symptoms

Can also be
ASYMPTOMATIC



**Barriers Facing
Patients with
Hypertension**

Barriers

Systems dismissing hypertension

Lack of consistent medical follow-up

Provider failure to adjust drug regimens

Medication use

Cost

Patient belief systems dismissing hypertension as a significant medical problem

Lack of consistent medical follow-up

Provider failure to adjust drug regimens to achieve control

Medication side effects and dosing

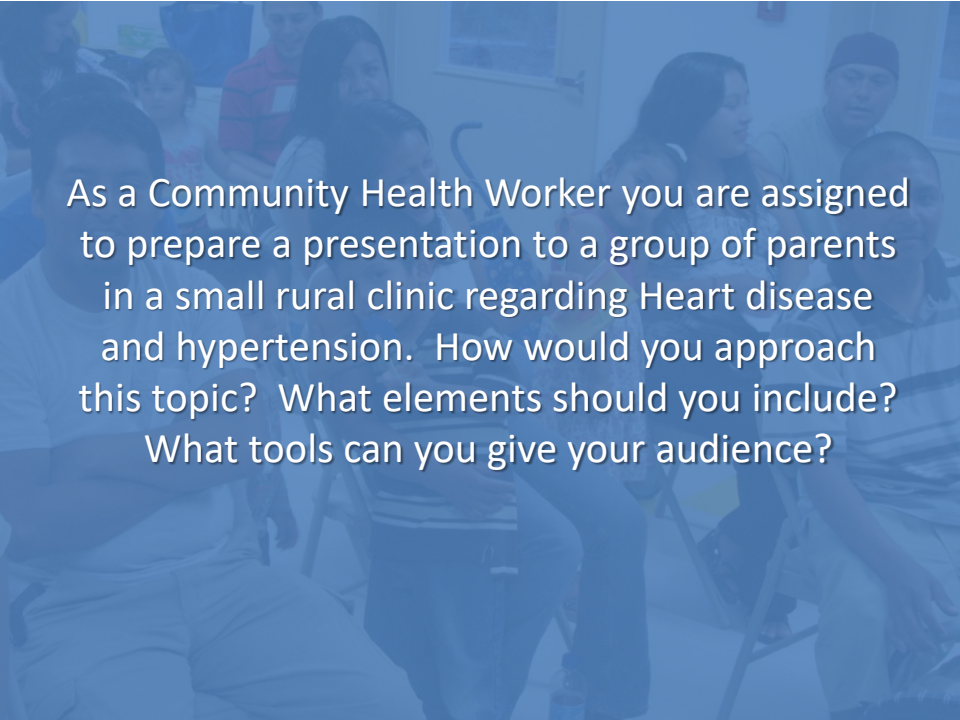
Lack of economic resources to access healthcare or purchase medications

Lack of adherence with medication

Potential Solutions



- Education, conferences, publications
- Use medication with fewer side effects, add a sliding fee discount
- Use diuretics, generically available medication
- Promotion of pillboxes, combination, less frequent drugs
- Public education camping, community screening program, pharmacy, work-based program



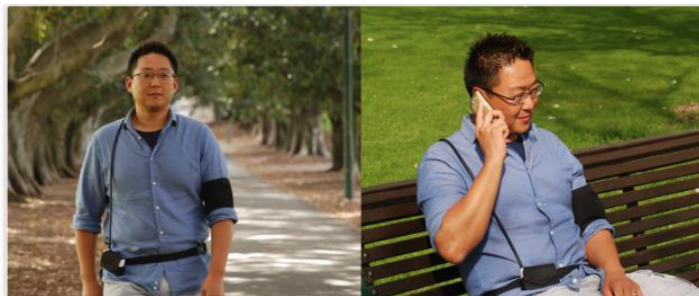
As a Community Health Worker you are assigned to prepare a presentation to a group of parents in a small rural clinic regarding Heart disease and hypertension. How would you approach this topic? What elements should you include? What tools can you give your audience?

How to encourage patients to conduct appropriate screening ^{6,7}

Screening patients 18 and older is beneficial

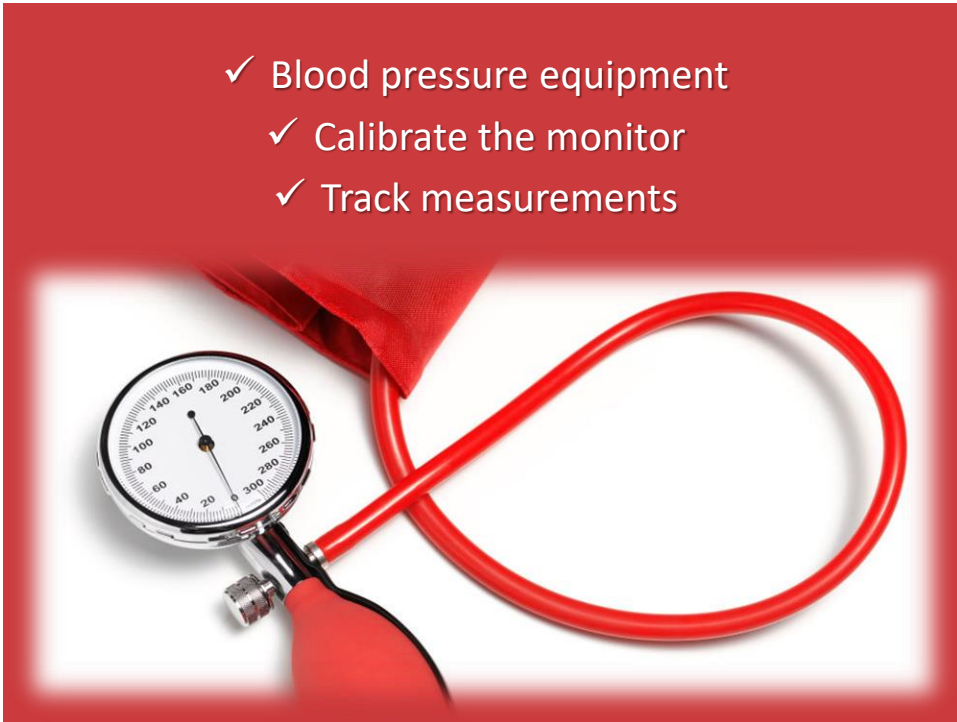


Ambulatory blood pressure monitoring as the best method to confirm a suspected hypertension diagnosis



<http://www.glanmiremedicalcentre.com>

- ✓ Blood pressure equipment
- ✓ Calibrate the monitor
- ✓ Track measurements



Referral of patients to
appropriate programs ⁷

Support the development of a team approach for providing care for patients and delineating roles and responsibilities of each team member in the management of hypertension



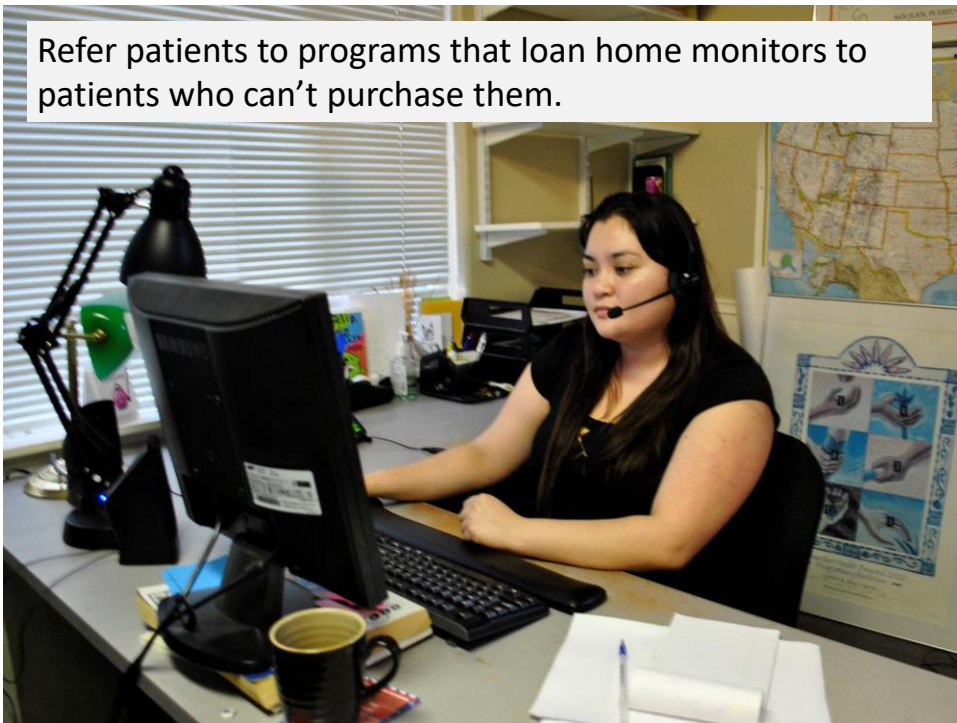
Train and provide technology for population management – look at trends and improvements in the population of patients with hypertension



Involve patients in self-management program



Refer patients to programs that loan home monitors to patients who can't purchase them.





Questions?

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References

1. <http://www.hrsa.gov/quality/toolbox/measures/hypertension/>
2. <https://www.nhlbi.nih.gov/health-pro/resources/heart/hispanic-health-manual/session-4#handouts>
3. <https://www.nhlbi.nih.gov/health/health-topics/topics/hbp>
4. <https://www.nhlbi.nih.gov/health/health-topics/topics/hbp/treatment>
5. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1993926/table/tbl1/>
6. <http://www.aafp.org/news/health-of-the-public/20151015htnprevrec.html>
7. https://www.healthit.gov/sites/default/files/13_bptoolkit_e13l.pdf