INTRODUCTION:
High blood pressure (HBP) affects around 1/3 of the adult population in the U.S. and is a risk factor for heart disease and stroke, which are leading causes of death in the United States. The American Heart Association recommends a number of lifestyle changes for individuals with HBP, including home blood pressure monitoring to stay on top of controlling HBP. The American Heart Association specifically recommends an automatic, cuff-style, bicep (upper-arm) monitor. Wrist and finger monitors are not recommended because they yield less reliable readings.\(^1\) This study was funded by Welch Allyn and administered by M3 Global Research to understand current treatment practices for HBP and physician attitudes towards home blood pressure monitoring products in the market today.

DESIGN, SETTING AND PARTICIPANTS:
This study was performed using a randomized online survey of 100 General Practice (34), Family Practice (33), and Internal Medicine (33) physicians across the United States. Results obtained will provide a 95% confidence interval with +/- 9.8% margin of error. To increase the accuracy of the testing, questions were included to identify people who speed through the questions. Four physicians were eliminated based on this method.

Physicians were surveyed regarding:
- Treatment practices for hypertension
- Beliefs about the techniques used by patients when measuring home blood pressure
- Belief in the accuracy of home blood pressure devices and scales
- Recommendations of home blood pressure device brands (Omron, Welch Allyn, A&D, iHealth, Withings, and QardioArm)
- Use of Welch Allyn products in the office today

RESULTS:
All physicians surveyed have patients that currently monitor their blood pressure at home. 85% of physicians agree most patients do not follow all of the correct steps to get an accurate blood pressure when monitoring at home. Nearly three quarters (73%) of physicians agree there is a difference in the accuracy of over-the-counter blood pressure devices compared to blood pressure devices used in the physician office setting. Welch Allyn products are used by 87% of physician offices today. 9 out of 10 physicians are confident in the accuracy of the Welch Allyn devices used in their office today. If available at a comparable price, 95% of physicians would recommend a Welch Allyn blood pressure device over other available options. 8 out of 10 physicians would personally purchase a Welch Allyn device for home use. See Exhibit 1 for detailed study results.
Exhibit 1 – Survey questions and responses

Please select the level to which you agree with the following statements: (% Completely/Somewhat Agree):

Most patients utilize the proper size cuff when measuring blood pressure at home 48%
Most patients place the cuff correctly on their arm when measuring blood pressure at home 47%
Most patients take multiple readings 44%
Most patients sit still, with their feet flat on the floor, back supported while taking reading 43%
I believe patients follow proper technique when monitoring blood pressure at home 37%
Most patient measure at the same time each day 25%
Most patients don't smoke, drink caffeine, or workout 30 minutes prior to measuring 21%
Do all of the above 15%

Do you agree with the following statement: "There is a difference in the accuracy of over-the-counter blood pressure monitors and the blood pressure monitors used in physician offices and hospitals today"?
Yes 73%; No 27%

Do you agree with the following statement: "I trust the accuracy of over-the-counter blood pressure monitors"?
Yes 57%; No 43%

Please select the level to which you agree with the following statements (% Completely/Somewhat agree):
I believe the accuracy of the devices used to capture blood pressure at home are equal to the devices used in the clinical office setting 33%

Do you currently have patients that take blood pressure measurements at home?
Yes 100%; No 0%

If price were equal, which of the following would you recommend? (Select 1)
Welch Allyn 95%; Other (Omron, A&D, Withings, iHealth, QardioArm) 5%

How likely would you be to recommend the following brands of home blood pressure devices to your patients who need to monitor their blood pressure at home? (% Very/Somewhat Likely)
Welch Allyn 84%; Omron 60%; iHealth 34%; Withings 29%; QardioArm 26%; A&D 25%

How would you rate the following brands of home blood pressure monitors in terms of accuracy? (% Extremely Accurate)
Welch Allyn 43%; Omron 28%; A&D 7%; iHealth 5%; Withings 11%; QardioArm 5% (Welch Allyn % Extremely very accurate 87%)

How would you rate the following brands of home blood pressure monitors in terms of ease of use? (% Extremely/Somewhat Easy)
Welch Allyn 96%; Omron 93%; A&D 86%; Withings 84%; QardioArm 83%; iHealth 80%

If all the devices cost the same amount, how would you rate the following brands of home blood pressure monitors in terms of value for the money? (% Great Value for the Money)
Welch Allyn 37%; Omron 20%; Withings 9%; iHealth 5%; A&D 5%; QardioArm 3%

Which brand(s) would you personally purchase for use in your home (if needed)? (select all that apply)
Welch Allyn 80%; Omron 40%; A&D 7%; Withings 4%; Other 4%; iHealth 3%; QardioArm 1%

Do you currently use Welch Allyn products in your daily practice?
Yes 87%; No 13%

How confident are you in the accuracy of the Welch Allyn blood pressure devices you use today?
n=83; (% Very/Somewhat Confident) 87%

Typically, how often do patients report or submit their blood pressure results taken from their home to your office?
Once per day 7%; Once a week 17%; Once a month 17%; At next appointment 59%; Never 0%

How do you typically collect blood pressure data results from patients? (select all that apply)
Have patient bring collected results on paper to next appointment 73%
Have patient bring results on the device to next appointment 61%
Have patient call in results 39%
Have a clinician or nurse call them for results 22%
Email 16%; Fax 12%; Other 5%

Is the data collected at home from the patient beneficial in the management of their care? Please explain.
“Yes, I trust a series of readings from home more than one reading in my office.” (General Practice Physician)
“Yes, home blood pressure results are probably more indicative of actual blood pressure control.” (Family Medicine Physician)
“Yes, Some patients have significant white coat hypertension. By making sure their monitor matches what we have at the office and that they understand how to use it, I can get results that are more accurate for these patients. When adjusting medications, home readings help direct treatment choices. Reviewing results with patients and noticing trends helps direct education for the patients (looking at readings before and after smoking, for example, or when there has been more exercise).” (General Practice Physician)
“Yes, sometimes office pressures are not actual reflection of chronic pressures.” (Internal Medicine)
“Yes, it helps me adjust their medication if needed based off their daily blood pressure measurements.” (Internal Medicine)
“Yes, it allows the patient better control to manage their disease. Also helps eliminate white coat hypertension results.” (General Practice Physician)
“Yes, it helps to have multiple readings over multiple days to get the best idea of a patient's true BP.” (General Practice Physician)

References