

Improving Self-Reporting of At-Home Blood Pressure Measurements Using the MyChart Patient Portal



Usman Saqib, M4, LINC Scholar, Brody School of Medicine;

Lacy Hobgood MD, FACP, FAAP, Division Chief, Internal Medicine-Pediatrics, Brody School of Medicine

BACKGROUND

The most recent report from the American Heart Association shows that **around 110 million or 46%** of all US adults over the age of 20 years old develop **high blood pressure**.¹

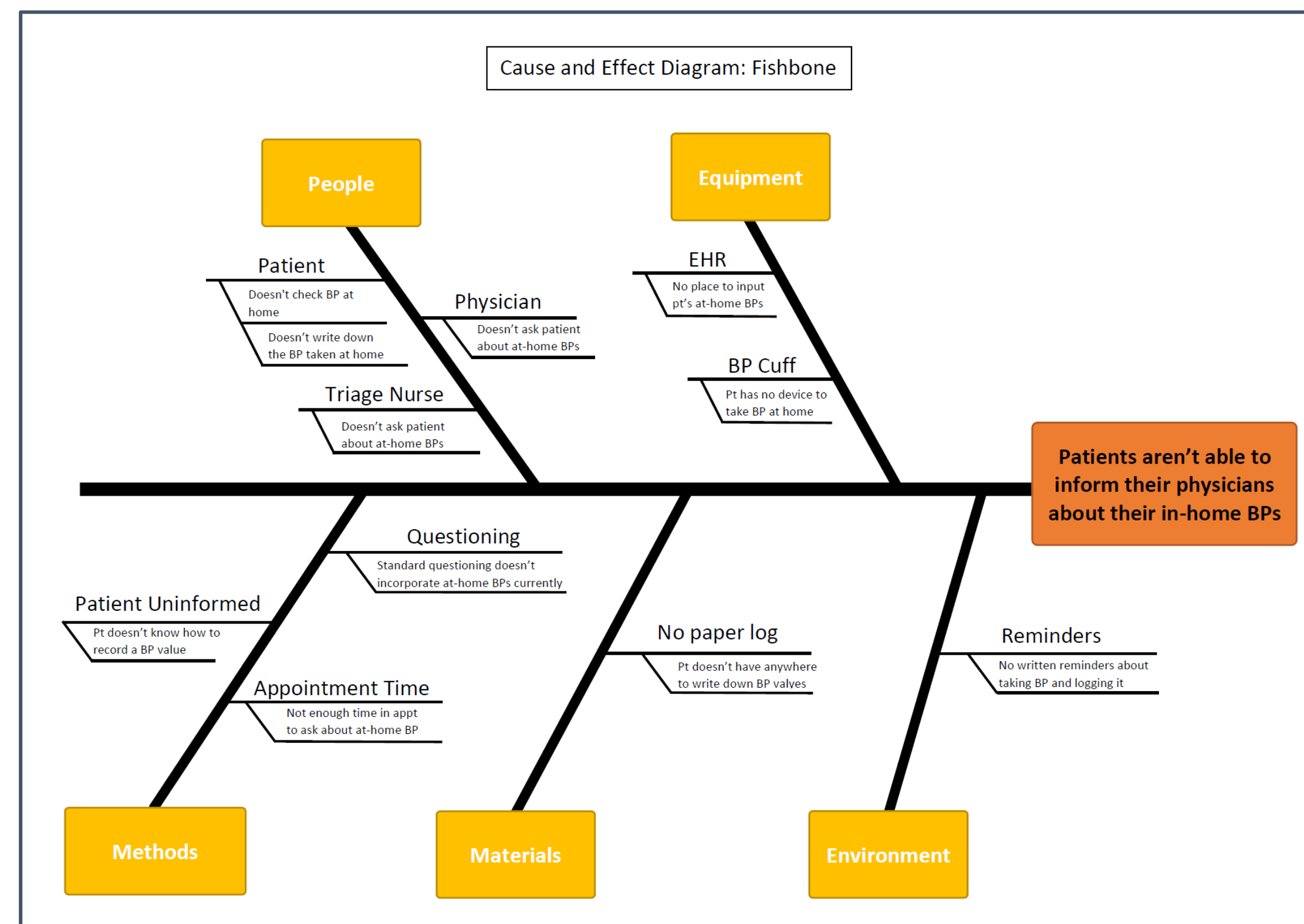
Evidence does show that **patients who self-report blood pressure are more likely to lower their blood pressure readings over time**.²

Virani SS, Alonso A, Benjamin EJ, Bittencourt MS, Callaway CW, Carson AP, et al. Heart disease and stroke statistics-2020 update: a report from the American Heart Association. *Circulation* 2020;141:e139-596.
Uhlrig, Katrin, et al. Self-Measured Blood Pressure Monitoring: Comparative Effectiveness. Agency for Healthcare Research and Quality (US), January 2012.

PROJECT AIM

Improve patient at-home blood pressure monitoring **by 10%** in the Adult and Pediatric Health Care Clinic setting **within two years (May 2022)** by implementing **educational and reminder interventions** to improve self-reporting of their blood pressure measurements.

PROJECT DESIGN/STRATEGY



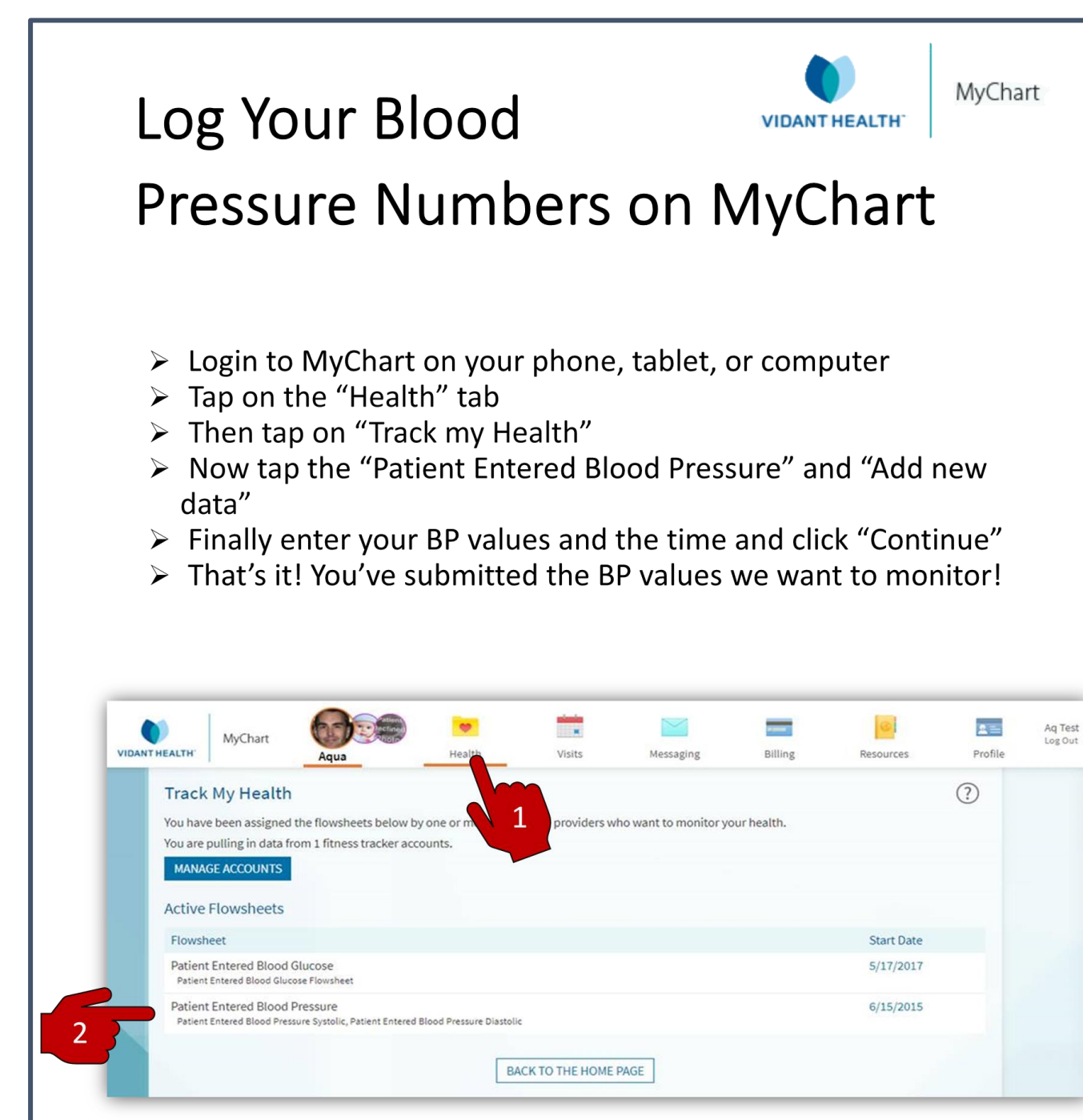
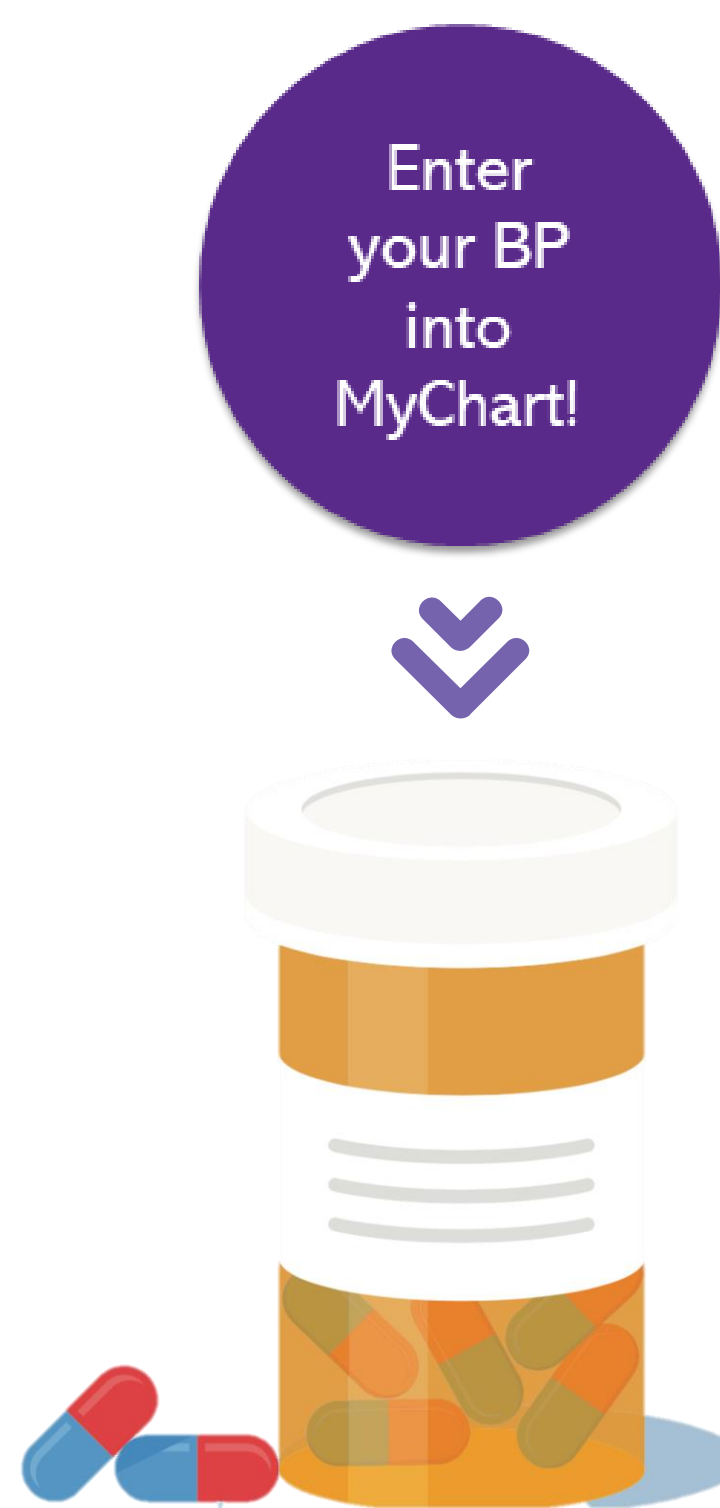
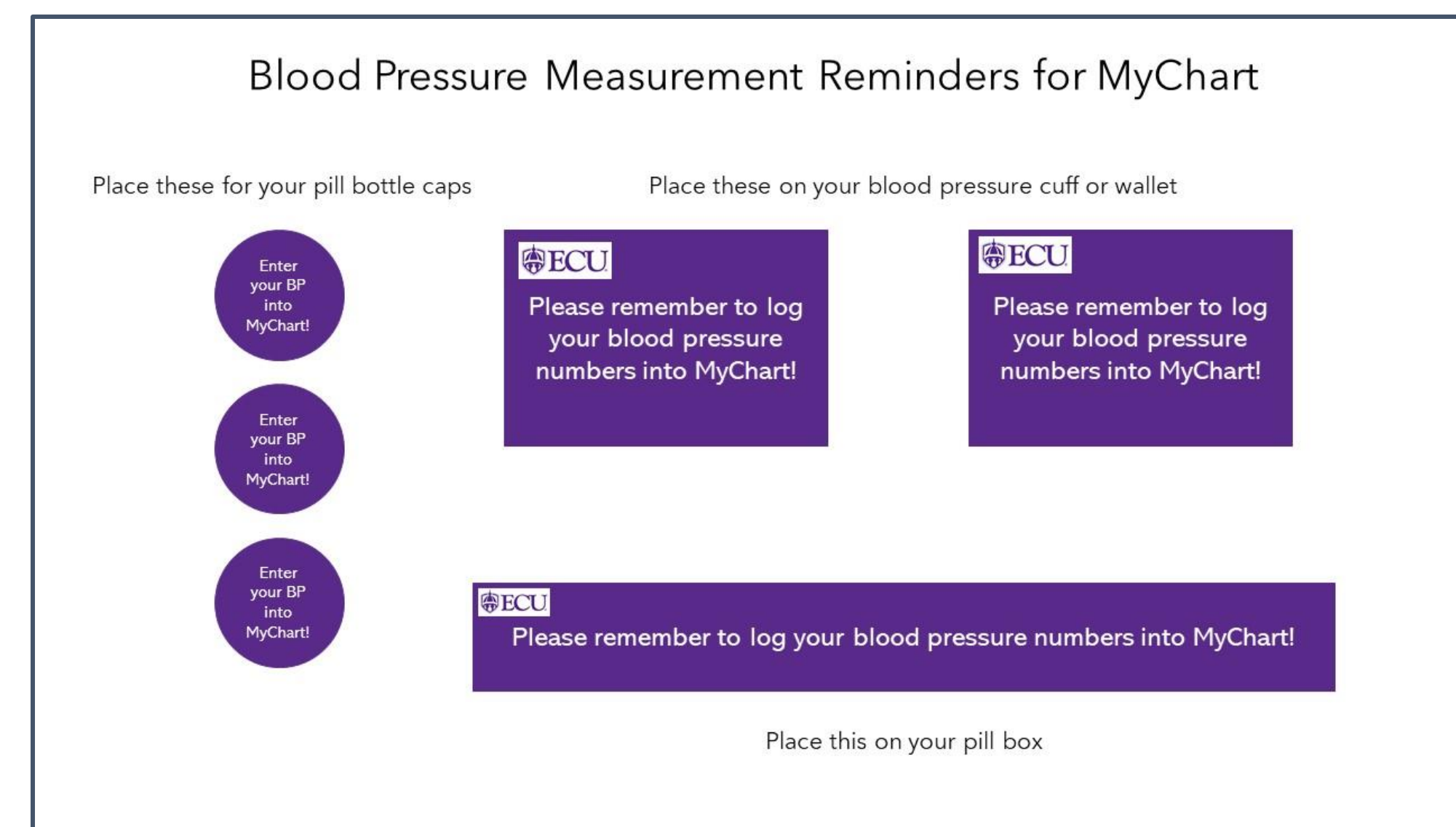
Location: Adult and Pediatric Health Care Clinic

Strategy: The Plan Do Study Act method of quality improvement consisting of 3 PDSA cycles

Population: Recruited patients with an established diagnosis of hypertension under the care of one providing physician

Outcome Measure: Number of patients self-reporting their at-home blood pressures using the MyChart patient portal

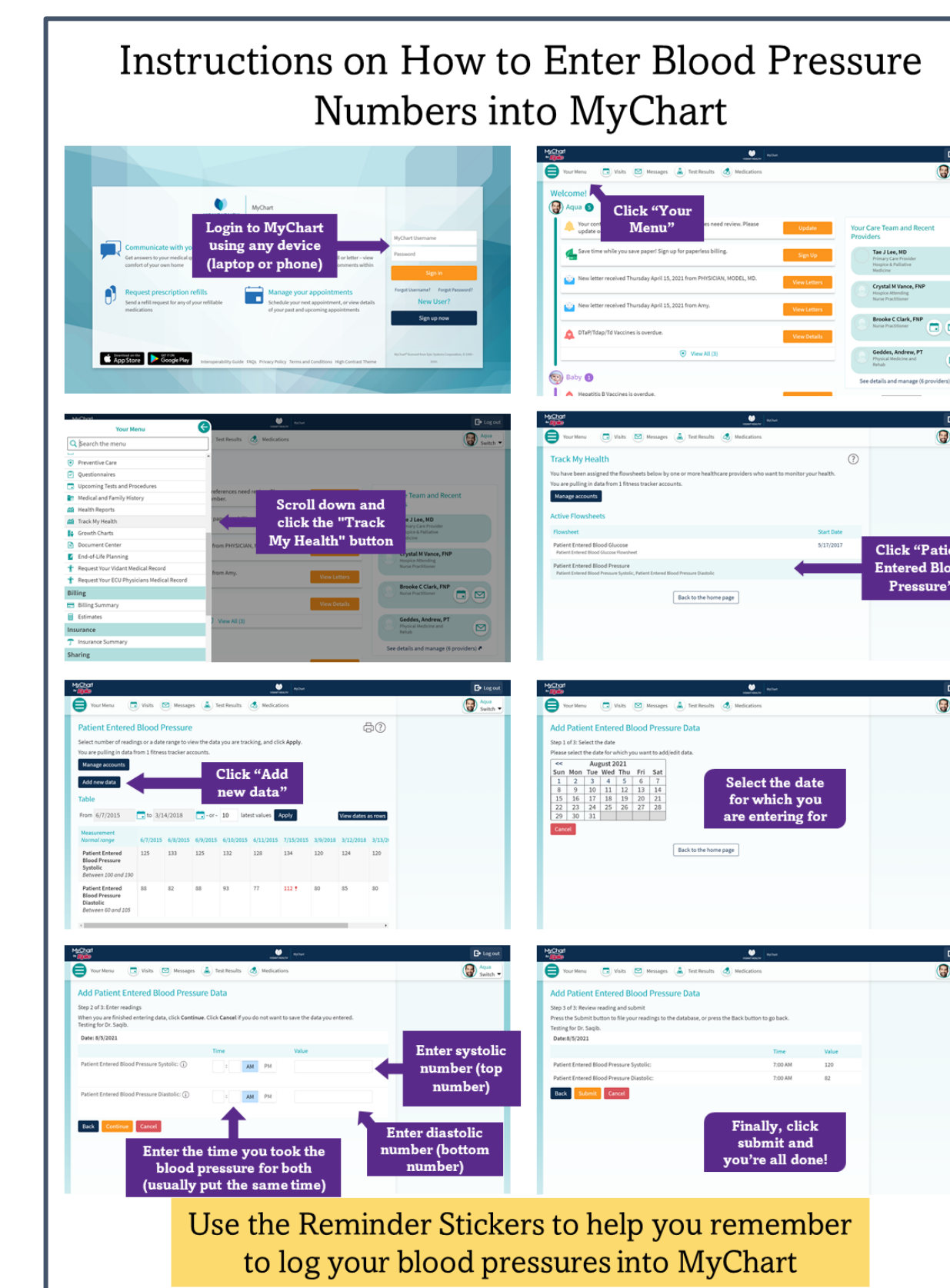
CHANGES MADE (PDSA CYCLES)



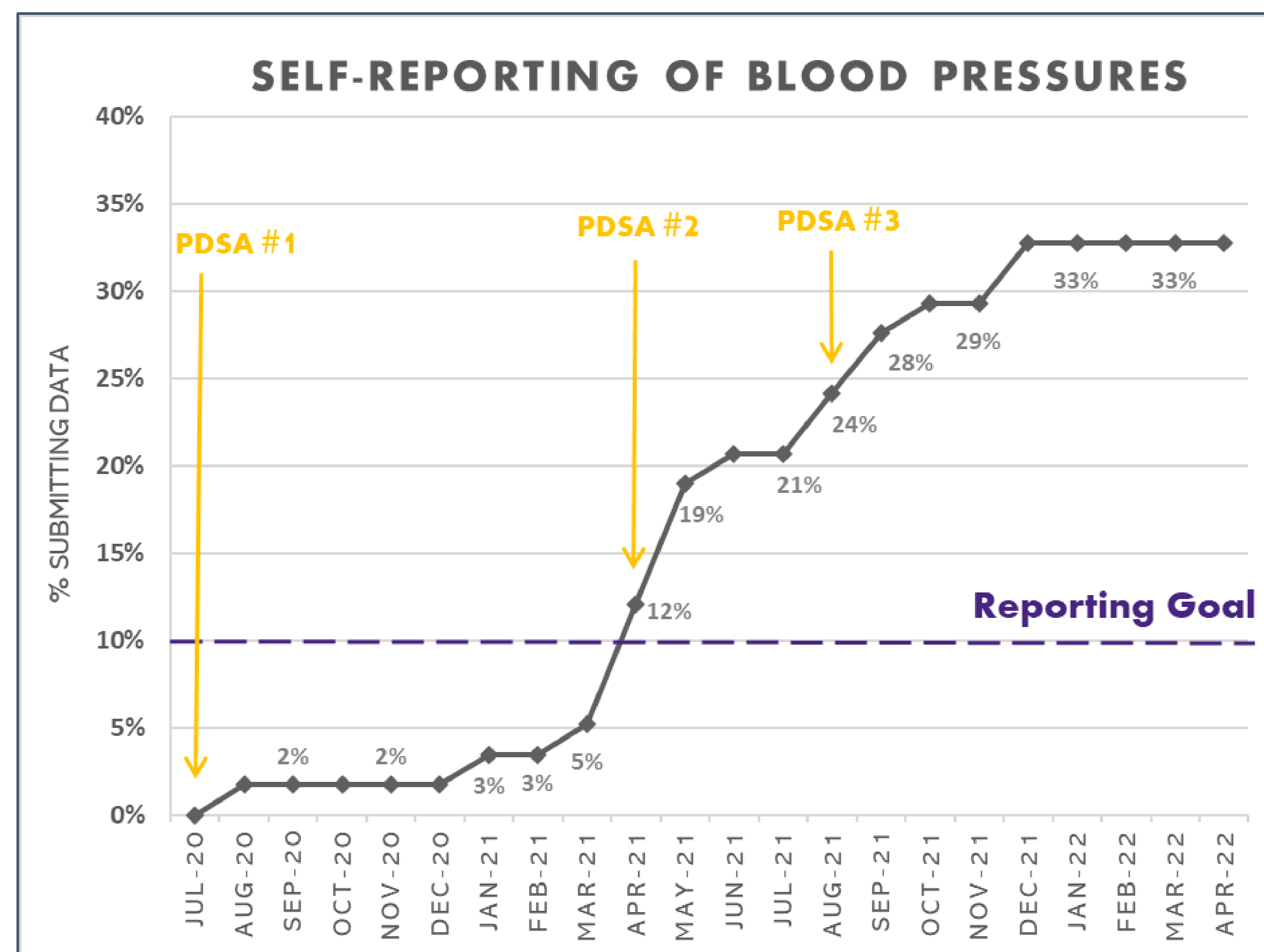
PDSA 1: Physician and patient education

PDSA 2: Improved education via telephone troubleshooting and through MyChart

PDSA 3: Reminder stickers and improved educational flyers



RESULTS/OUTCOMES



Metrics	
Participants (n)	58
Self-Reporters (n)	19
Participant Age (Avg age)	70
Self-Reporters Age (Avg. age)	70
Range of Entries	(1,75)
# of Entries (Avg)	25

LESSONS LEARNED

Patients are **enthusiastic about taking control** of their health. With **little effort** (PDSAs 1 and 2), we are able to have patients provide **much needed clinical data**. The average age was **70 years old!**

Technology and the EHR system should be a powerful extension of our practice by utilizing the **built-in functions to benefit patient care**. Self-reporting blood pressure was **one of several self-reporting parameters** that exists in the EHR currently.

Unique interventions can address gaps in our project. In PDSA 3, we used an interesting reminder sheet to create **an association between daily routines and our measure**.

NEXT STEPS

Increase **recruitment** and patient participation

Continue to develop and **evolve PDSA cycles** by innovating and utilizing feedback

Incorporate **additional measures**, such as monitoring adherence and consistency

Consider **expanding project** to self-report other disease process such as blood glucose levels for diabetes

Re-evaluate goals and **create new aim** and target for self-reporting

ACKNOWLEDGEMENTS

I would like to acknowledge all the hard work and dedication of Dr. Lacy Hobgood, Drillous Gay, John Ross, Tracy Gibbs, and Lisa Rodebaugh for making this project possible. I would also like to thank the LINC Scholars program and faculty—Dr. Timothy Reeder, Dr. Suzanne Lazorick, Jenna Garris, and Jessica Day-Brinkley for their support and guidance throughout the entire process.



Usman Saqib, BSPH
Brody School of Medicine
East Carolina University
Greenville, North Carolina 27858
919.771.6689
saqibu18@students.ecu.edu