

# BENEFITS OF A MEDICAL AND PHARMACY STUDENT LED, COMMUNITY BASED BLOOD PRESSURE SCREENING



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## INTRODUCTION

- 47% of adults in the United States of America have hypertension or are taking some form of medication for hypertension.<sup>1</sup> Additionally, over 70% of adults over 65 have hypertension and this percentage is expected to rise over the next two decades.<sup>2</sup>
- The American Medical Association (AMA) Riverwalkers Blood Pressure Screening event was created in an effort to assist Detroit's elderly population in consistent management and monitoring of their blood pressure. Every Tuesday from June through August, medical and pharmacy students offered blood pressure screening and resources to individuals participating in Detroit Riverwalkers, a walking program designed to promote health and wellness in Detroit's elderly population.
- The goal was twofold: 1) to increase medical and pharmacy students confidence and competency in blood pressure screening and counseling through repetitive practice and corrective feedback, and 2) to assist Detroit's elderly community in managing their blood pressure by increasing accessibility to screening, promoting awareness of the effects of hypertension on overall health, and providing general tips on managing their health through physical activity, medication adherence, and dietary intervention.

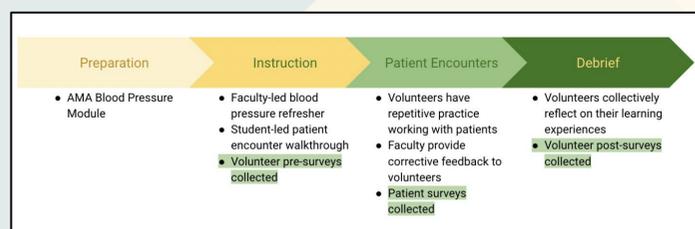
## METHODS

**Prior to the session:** Medical and pharmacy student volunteers completed the online AMA Blood Pressure Module.

**At the beginning of the session:** Volunteers completed a pre-survey and attended a faculty-led refresher on blood pressure measurement technique, followed by student-led instruction on how to work through the patient encounter.

**During the session:** Volunteers visited with patients, discussing pertinent medical history, recording blood pressures, and providing counseling on blood pressure maintenance through diet, exercise, and medication adherence. Faculty were available throughout the session to provide corrective feedback and address students' and patients' questions. Surveys were collected from patients to assess their satisfaction with the service provided by students and faculty.

**At the end of the session:** Volunteers completed a post-survey and participated in a group debrief of what they had learned.



**Survey Analysis:** Likert scales were used to assess patients' and students' agreement with various statements, with 1 indicating strong disagreement and 5 indicating strong agreement.

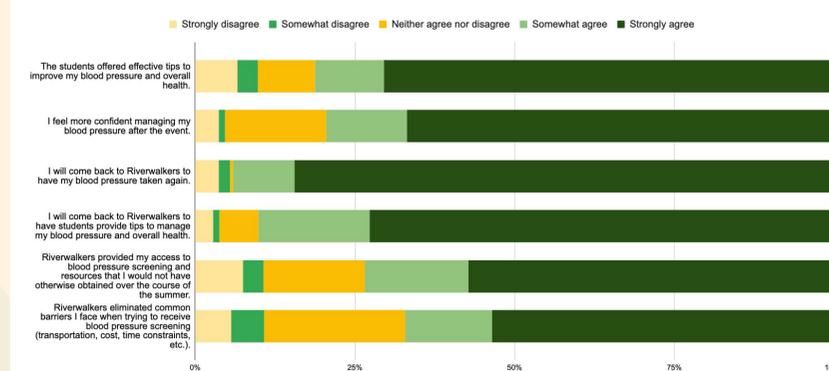
## PROGRAM GOALS

1. Improving Blood Pressure assessment skills among medical and pharmacy students with synchronous and asynchronous methods with direct feedback from preceptors.
2. Increasing accessibility and convenience of blood pressure screening and management resources for the Detroit geriatric community.
3. An opportunity for interdisciplinary teams of students to engage community based screening didactics
4. Expanding student knowledge of the community they serve through conversations with longstanding citizens of Detroit.



## PATIENT RESULTS

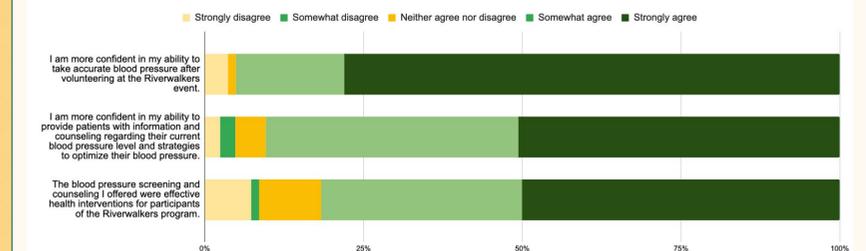
Likert scale ratings demonstrated high levels of agreement among community participants that the Riverwalkers program provided access to blood pressure screening and resources that they would not have otherwise obtained over the course of the summer (n = 215, M = 4.13, SD = 1.23). 67% of participants agreed that the program removed common barriers (e.g. transportation, cost, time) that deter them from seeking blood pressure screening (n = 213, M = 4.04, SD = 1.214).



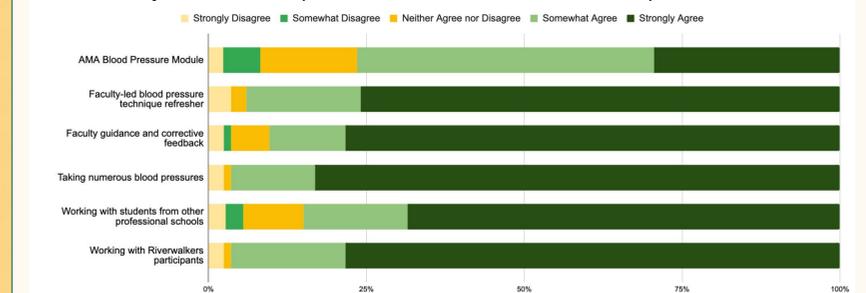
## VOLUNTEER RESULTS



Despite relatively high perceived confidence prior to volunteering, Likert scale ratings among students demonstrated increased confidence in measuring blood pressure after participating in the event (n = 82, M = 4.66, SD = 0.835).



Students perceived highest educational value in the following program components: faculty-led training and corrective feedback (n = 83, M = 4.63, SD = 0.851), repetitive practice in measuring blood pressures (n = 83, M = 4.75, SD = 0.713), and interacting with community members (n = 83, M = 4.70, SD = 0.728).



## CONCLUSION

Student-led blood pressure screening is an effective means of hands-on instruction for medical and pharmacy students, while providing increased accessibility and convenience to Detroit community members seeking to monitor and manage their blood pressure. After participating in the program, students reported satisfaction with the educational experience and increased confidence in providing blood pressure measurements and counseling. Further research should be done into the long-term impacts of the program on students' educational outcomes and community members' blood pressure management.

Additionally, further studies should be conducted on specific barriers to blood pressure screening are prevalent among this population and what barriers the Riverwalker event relieves. Finally, research should be conducted to determine the effects of interdisciplinary teams on professional growth in blood pressure screen events.

