

Self-measured Blood Pressure Monitoring

Sustainability Cardiovascular Health Area Networks

Self-measured blood pressure monitoring (SMBP) involves the regular measurement of blood pressure by the patient, outside of a clinical setting using a personal blood pressure measurement device. SMBP may be paired with clinical support including patient training on how to use a blood pressure measuring device, one-on-one counseling, electronic or web-based tools, and/or educational sessions. Telehealth and telemedicine may be used in conjunction with home blood pressure telemonitoring, for patients with office visit barriers, including virtual assessments, virtual patient trainings on SMBP device use and virtual follow-up visits. When combined with clinical support, SMBP can improve blood pressure control and enhance accessibility to care and quality of care for people with hypertension (CDC, 2022).



Discussion Highlights

This discussion focused on the elements of SMBP programming have been successful among sub-recipient; what is currently working well with state SMBP programming; and partnerships that have been helpful in promoting or operating SMBP programs.

The format of self-measured blood pressure (SMBP) programs that states are currently operating include:

- Healthy Heart Ambassadors, Check. Change. *Control.*, and Target BP.
- Others noted using modified American Medical Association/Johns Hopkins protocols and Team-Based Care to implement various steps of an SMBP program.
- Almost all utilize partnerships with health systems; and
- Other common partners are local health departments and third-party contractors.

Key Take-Aways

SMBP program successes include engaging a wide variety of care teams; engaging non-traditional partners in patient recruitment; training and funding providing by the SHD; and referrals integrated into the EHRs.

Engaging a variety of care team roles in programming:

- *Chronic Care Coordinator* oversee a clinical site's SMBP program to ensure continuity across providers.
- *Dietitians* and other non-physician care team members make referrals to a SMBP program, both from outpatient and inpatient settings
- *Pharmacists* give SMBP support to patients at the pharmacy and refer patients to a clinic for further SMBP follow-up.
- *Medical Assistants and Community Health Workers (CHWs)* trained in NP monitoring follow up with patients enrolled in SMBP to collect home BP measurements.
- *Care Coordinators, CHWs and Health Coaches* run reports of SMBP referrals in the EHR and outreach those patients.

Engaging non-traditional partners in patient recruitment:

- A local recreation and wellness center can enroll patients in SMBP regardless of BP measurements or HTN diagnosis, then wellness center staff notifies a clinic, and the clinic arranges follow-up.
- The WISEWOMAN screening tool has been successful in identifying candidates for SMBP programs.

Program development because of training and funding provided by the state health department:

- State-purchased BP cuffs or funding provided for partners to purchase cuffs.
- Master trainer programs to provide clinical staff with skills to play a role in SMBP program sustainability and spread.
- SMBP program referrals integrated into the Electronic Health Record (EHR). Modifying the EHR to allow differentiation of in-clinic and at-home BP measurements.
- Identifying a point person in the clinic to follow up on referrals.
- Using the EHR calendar to see the availability of the dietitian, enabling real-time scheduling for patients who are referred to a dietitian-led wellness program during a clinical encounter.
- Setting up reminders and alerts for team members in EHRs to prompt follow-up with patients.

Examples and Lessons Learned

Program development because of training and funding provided by the state health department:

- Changes to the EHR can take 1-2 years to develop and implement, but ultimately make the referral process smoother.
- EHRs can also be used to alert providers and care managers when a patient submits a BP measurement that is outside an expected range of values.
- Allow each clinic the flexibility to choose their internal protocols for SMBP referrals and monitoring increases engagement.
- Enroll patients in SMBP at the time of discharge from a hospital admission that included a HTN diagnosis. Patients can receive a cuff upon discharge and some insurers will reimburse the cost.

Maintaining engagement of patients and partners in SMBP programming:

Several strategies were discussed including:

- Mandating **partner program engagement** to receive funding via a contract clause.
- Engaging **key personnel** in the program, especially non-physician care team members
- Providing **multiple avenues** for partners and patients to engage with the program.
- Reaching patients **outside of the healthcare system**, for example in low-income housing, at faith-based group meeting, or at community centers.
- Patient outreach through **CHWs** who speak the primary language of priority populations.
- Embedding **Healthy Heart Ambassadors** at community centers
- **Stipends** to partners participating in SMBP programs to offset their administrative costs.
- Including **SMBP data** in healthcare system quality dashboards and internal communications
- State-owned **supply of BP cuffs** to loan and a clear process for cuffs to be returned.
- Informing partners that, in cases where state health department is not be able to purchase BP cuffs, partners can seek **funding** elsewhere. Potential options include the American Heart Association, community foundation, or a local hospital's charitable fund.
- Patients are more likely to remain engaged in SMBP when clinic staff **discuss program requirements** with the patient and ensure they have the capacity to participate.
- **Health Educators** identify patients who are likely to benefit from a SMBP program and refer these patients to providers.

Support necessary for SMBP promotion and operation beyond current funding:

- **Widespread reimbursement** and insurance coverage for BP cuffs, which currently varies by state. In specific, reimbursement and coverage for Bluetooth-enabled BP monitors.
- More flexibility to purchase, maintain and repair SMBP machines.
- **Provider referrals.**
- Clinic **workflows** that involve a variety of staff roles.
- Ability to conduct **master trainer sessions.**
- Assistance with technology barriers such as non-universal compatibility of EHRs and smartphone brands.
- Additional **broadband internet** coverage in underserved areas. Or ability to share home BP measurements via the hotspot included on clinic-owned tablets that patients might utilize for other self-management programs.

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