

Enhanced Community Access to Blood Pressure Checks: Pharmacy Blood Pressure Kiosk Placement Program

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Background

- ❖ Hypertension affects 1 in 4 New York City (NYC) adults.¹
- ❖ 17% of NYC adults with hypertension are unaware, and of those with hypertension, less than half are controlled.²
- ❖ Death rate attributable to hypertension is 3 times higher in NYC's lowest income neighborhoods compared with highest income neighborhoods.³
- ❖ Out-of-office blood pressure monitoring has been shown to improve hypertension control.^{4,10}

Pilot Program Goals

- NYC Department of Health and Mental Hygiene (DOHMH) is conducting a community-based pilot intervention that promotes the use of stationary blood pressure kiosks in pharmacies in high-risk communities. Goals are to:
- ❖ Increase individual and community awareness about high blood pressure.
 - ❖ Promote self-blood pressure monitoring and improve blood pressure control in those with hypertension.
 - ❖ Reduce the risk of heart attack and stroke.

Target Population

- The target population includes residents and visitors of 3 discrete geographic areas in NYC high-risk neighborhoods (Harlem, South Bronx and Central Brooklyn). High-risk neighborhoods were defined as those with high rates of specific conditions, such as hypertension, diabetes, and obesity.
- ❖ Self-reported hypertension is as high as 36% in these communities compared to 26% for the rest of NYC.
 - ❖ High-risk neighborhoods are primarily low-income and largely populated by persons of color.

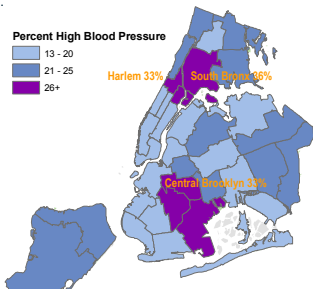


Figure 1. Mapping of self-reported hypertension by United Hospital Fund community districts. Source: NYC Community Health Survey 2006.

Design and Implementation

Targeted Geographic Areas

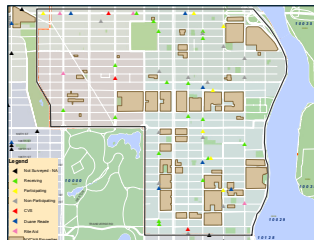


Figure 2. Harlem Zone

Graphical information system mapping was used to identify 3 discrete geographic target areas for pilot introduction, 1 in each of the high-risk neighborhoods.

- ❖ Maps of the Harlem (Figure 2), the South Bronx (Figure 3) and Central Brooklyn neighborhoods were generated showing all pharmacies, healthcare facilities and New York City Housing Authority (NYCHA) public housing developments.
- ❖ Areas with high residential density were prioritized and contiguous blocks encompassing approximately 40 pharmacies were identified.
- ❖ 3 final pilot program target areas were selected in consultation with NYC DOHMH field staff knowledgeable of the local areas.



Figure 3. South Bronx Zone

Recruitment and Program Components

- ❖ All pharmacies within each of the 3 identified target areas were surveyed and approached for participation in the pilot program.
- ❖ Interested pharmacies without a kiosk are provided one free of charge by the DOHMH. Pharmacies with a kiosk already in place are invited to participate in all other program components.
- ❖ Pharmacists are provided counseling tools for lifestyle modifications and medication adherence.
- ❖ Hypertension health education materials and blood pressure tracking cards are provided on the machines for users (Figure 4).
- ❖ Information on how to interpret blood pressure readings is posted on the kiosks in English and Spanish (Figure 5).



Figure 4. Health education materials.



Figure 5. Information posted on the kiosk.



Figure 6. Billboard promotion.

- ❖ A targeted neighborhood media and outreach campaign encouraging residents to stop in to participating pharmacies for free blood pressure checks includes:
 - ❖ Outdoor billboards (Figure 6) promoting the pilot program.
 - ❖ Lists of all participating pharmacies advertised through local health clinics, through faith-based organizations and advertising in NYCHA developments.

References

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Evaluation

Outcome of Interest	Instrument	Timeline
Neighborhood awareness of hypertension, risk factors and attitudes	Neighborhood street intercept survey	Pre/Post
Mean daily and total kiosk usage	Kiosk usage in DOHMH provided machines	Monthly
Individual health status, behaviors and BP measurement	Computerized kiosks in select pharmacies	Continuous
Pharmacist attitudes and behaviors	Pharmacist survey	Pre/Post

Pilot Program Progress

- ❖ 97 pharmacies have been invited to participate, and recruitment in 2 of the 3 zones is continuing (Figure 7).
- ❖ 46 participating pharmacies received kiosks from DOHMH.
- ❖ 26 participating pharmacies have blood pressure kiosks already in place.
- ❖ 25 pharmacies declined to participate, citing reasons such as space or staffing limitations.

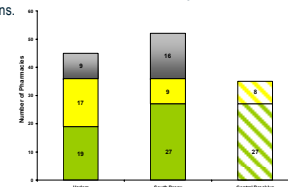


Figure 7. Pharmacy pilot program status by target area.

- ❖ Over 38,000 blood pressure measurements have been taken on DOHMH provided machines since installations began 6 months ago. Mean daily usage is 12, (range 3-26).
- ❖ Upon full pilot implementation, a total of over 107 pharmacies will be participating with 73 kiosks provided by DOHMH.
- ❖ Preliminary evaluation and analyses are underway.

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