# B. STATISTICAL METHODS

## 1. Respondent Universe and Sampling Methods

The target populations for the project are the patients who are eligible to participate in the evidenced based practice/interventions based on their race/ethnicity and health condition. The patients will be recruited by the local hubs.

For Chicago, the sample size for the HELP intervention is: 25 African Americans and 25 Hispanics/Latinos from the Lawndale Christian Health Center (LCHC). A screening tool will be used to determine program eligibility of patients who receive services at the participating clinic and have diabetes or hypertension. The target health conditions are: hypertension, diabetes, and obesity. The selection criteria, for inclusion are: African Americans or Latinos; overweight or obese (BMI > 25) and Type 2 diabetes (Hb1A1c > 7.5) or hypertension; 18 to 65 years of age; non pregnant; ability to perform self care; not travelling during the intervention period; and male or female. The criteria for exclusion are: psychiatric diagnoses, alcohol or substance abuse, seizures, myocardial infarction or stroke within past 6 months, terminal illness, pregnancy, and cognitive impairment. Patients will be randomly selected from a list of eligible patients from the clinic’s database based on having uncontrolled diabetes (Hb1A1c > 7.5); and they will be offered participation in the health education classes.

See Exhibit 2 for the preliminary numbers of patients expected to participate in Chicago. Given the size of the intervention class, the number of patients per class will be limited to 15; the total numbers for each racial/ethnic group will be minimal.

**Exhibit 2. Chicago Hub Preliminary Stats for Targeted Residents of Lawndale Christian Health Center (LCHC)** **Facilities**

|  |  |  |  |
| --- | --- | --- | --- |
| **LCHC** | **Hypertension** | **Diabetes** | **Obesity Total** |
| African American | 8 | 10 | 7 **25** |
| Hispanic | 8 | 10 | 7 **25** |
| Total | 16 | 20 | 14 **50** |

For Houston, the racial/ethnic target populations of the four senior residential facilities where patients will be recruited are as follows: African Americans (n=351), Asian Americans (n=173), Hispanics/Latinos (n=149). The health conditions included are diabetes and hypertension; and the focus is on patients who are 55 years and older and take at least 1 medication. The selection criteria, for inclusion are as follows: Diabetes: Age 55 years & older, member of target ethnic groups, resident of 1 of the participating facility, taking at least 1 medication for diabetes at time of recruitment, access to a telephone at home; and Hypertension: Age 55 years & older, member of target ethnic groups, resident of 1 of the participating facility, taking at least 1 medication for hypertension at time of recruitment, access to a telephone at home.

The target populations for the four facilities are presented in Exhibit 3. Sample numbers of patients who may participate from two of the four sites are provided in Exhibit 4. Given the relatively small number of residents in the four facilities who may meet the study criteria for racial/ethnic group and health condition, the Houston staff may not sample the residents, but include the entire population of eligible residents. Program capacity for this intervention is 200 patients, approximately 50 per residential facility.

**Exhibit 3. Target Demographic Population Houston Housing Authority (HHA) Sites**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Target Population** | **Telephone** | **Lyerly** | **Bellerive** | **Historic Oaks of APV** | **Totals** |
| **African-Americans** | **73.5%**  **(n=136)** | **65.5%**  **(n=114)** | **25.5%**  **(n=39)** | **38.5%**  **(n=62)** | **351** |
| **Asian Americans** | **5.9%**  **(n=11)** | **6.9%**  **(n=12)** | **47.7%**  **(n=73)** | **47.8%**  **(n=77)** | **173** |
| **Hispanic/Latinos** | **20.5%**  **(n=38)** | **27.6%**  **(n=48)** | **26.8%**  **(n=41)** | **13.7%**  **(n=22)** | **149** |
| **Total** | **185** | **174** | **153** | **161** | **673** |

**Exhibit 4. Houston Hub Preliminary Stats for Targeted Residents of Houston Housing Authority Facilities**

|  |  |  |  |
| --- | --- | --- | --- |
| **Lyerly Housing** | **Hypertension** | **Diabetes** | **\*HTN and DM Total**  **(inclusive of**  **columns 1 & 2)** |
| African American | 23 | 13 | 10 **46** |
| Asian American | 2 | 1 | 1  **4** |
| Hispanic | 11 | 13 | 8 **32** |
| Total | 36 | 27 | 19 **82** |

\*HTN=hypertension, DM= diabetes mellitus

|  |  |  |  |
| --- | --- | --- | --- |
| **Bellerive Housing** | **Hypertension** | **Diabetes** | **HTN and DM Total**  **(inclusive of**  **columns 1 & 2)** |
| African American | 9 | 11 | 8 **28** |
| Asian American | 6 | 4 | 4 **14** |
| Hispanic | 12 | 11 | 5 **28** |
| Total | 27 | 26 | 17 **70** |

\*HTN=hypertension, DM= diabetes mellitus

## 2. Information Collection Procedures

Information collection procedures will vary by local hub site. This project will not interfere with ongoing program operations.

In Chicago, clinic staff will administer the paper and pencil screening tool to patients; clinic staff will followup and further discuss the program with the patients and obtain additional eligibility requirements. Once a patient is deemed eligible and agrees to participate in the program, clinic staff will ensure that they have the patient’s electronic health record. CHWs and clinic staff will first have the patients sign a consent form. Baseline information will be obtained by Community Health Workers/program staff when patients attend the sessions**.**  In instances where clients are no longer participating in or have dropped out of the intervention, staff from the program will locate the patients and conduct the post-intervention interviews. These interviews are intended to be conducted face-to-face, as needed they can be conducted over the phone. The forms will be available in Spanish and English, and those who have literacy problems will be offered assistance in completing the form.  Unique participant identification numbers, case numbers, will be used to facilitate matching baseline and post-intervention data, but no identifying information will be provided to staff.  The data for those patients with baseline and post-intervention data will be matched using a unique encrypted identifier. Completed questionnaires will be kept in a locked file.

In Houston, once patients have been recruited, program staff will first have the patients sign a consent form to acknowledge their participation in the program and consent to complete program questionnaires, as well as consent to have their clinical data (blood pressure readings, measure diabetic HbA1C levels, and weigh patients) measured. The paper and pencil data collection forms will be administered and completed by the pharmacists and Houston Hub staff. The forms will be available in English, Spanish, Chinese, and Vietnamese. Pharmacists and staff will administer the forms in the preferred language of the patient. Unique patient identification numbers will be used to facilitate matching baseline and post-intervention data, but no identifying information will be provided to project staff.  Paper forms will be given to project staff for data entry and analysis.  Completed questionnaires will be kept in a locked file and the computer database will be password enabled so that only project staff can access the information.

## 3. Methods to Maximize Response Rates

A number of methods will be used to maximize the response rates, they include:

* **Incentives**—Houston will provide incentives to patients to increase the likelihood of the participants completing the post-intervention surveys;
* **Well trained staff**— All staff delivering the interventions will be well trained before any interactions with the participants. They will be trained on the curriculum as well as their interactions with participants. For example, the Houston pharmacists will be trained in motivational interviewing to reinforce their educational approach with the participants. Staff will be well prepared to deliver the curriculum and keep the interest of the patients high, which will lead to a high retention rate; and
* **Good contact information**—Staff will be trained to obtain good contact/locator information for each participant, in the event that the person leaves the intervention, the staff can still be in touch to obtain the post-intervention information.

## 4. Tests of Procedures

The data collection tools will be pilot tested prior to full scale use in the program. A small number of patients, three to five, will be given both the baseline and post-intervention tools to complete. These patients will have similar characteristics as the patients who will enroll in the interventions. They will meet the eligibility criteria for race and ethnicity, health condition, and either live in one of the residential buildings in Houston or are served by one of the health care clinics in Chicago. Feedback from this activity will be used to revise the questionnaires if needed.

## 5. Statistical Consultants

Responsible individuals for OMH are:

Jamila R. Rashid, PhD, MPH

Associate Director for Research and Policy

OMH, OPHS, OS, HHS

240-453-6154

[Jamila.rashid@hhs.gov](mailto:Jamila.rashid@hhs.gov).

The Chicago and Houston staff designed the data collection with input from the Westat staff. They will be responsible for data collection. Data analysis will be conducted by the Westat staff. The individual responsible for statistical consultation of this data collection is: Joseph Sonnefeld, Westat at 301-251-1500.

**ATTACHMENTS**

Attachment 1: Evaluation and Data Source Table

Attachment 2: Patient Participant Surveys – Chicago

Attachment 3: Patient Participant Surveys – Houston