

Community Health Screenings Project Report



Louisville Metro Department
of
Public Health & Wellness

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Community Health Screenings Project

Southwest/Northwest
Louisville, Kentucky

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1.0 Summary

In 2007, Louisville Mayor Jerry E. Abramson signed a resolution for the Louisville Metro Department of Public Health & Wellness (LMPHW) to enter into an agreement with the Environmental and Public Protection Cabinet of Kentucky and Metropolitan Sewer District to organize and conduct community health screenings. This resolution was in response to a court decree issued by the United States District Court, Western District of Kentucky, Louisville Division, filed April 25, 2005. To fulfill the requirements of the decree, these screenings with results, follow-up and referral will be completed by June 30, 2008.

The Community Health Screenings is the largest project of its kind in Louisville, Kentucky and the only project of its scope. The project was organized into segments and the target area was subdivided into zones which allowed for efficient planning of health screenings for 30,000 persons under controlled conditions. The LMPHW entered into a six-month planning phase that included defining the nature and types of health screenings to be offered, securing accessible location permitting parking, water, electricity, and patient confidentiality; scheduling health department staff; recruiting community partners; soliciting community residents; designing data collection instruments, and organizing an event to provide an optimal experience for the participants, partners and staff that fulfilled the requirements of the Supplemental Environmental Projects consent decree.

During the screening period, September 10 – November 9, 2007, 2,407 persons participated in the health screening event of which 98 were children. Seventy-two (72%) of the participants were African Americans and 27% were Whites. These participants self-selected any of 14 types of health screenings as appropriate for age and gender. Following the event, the Department of Public Health & Wellness contacted all participants who were screened and as appropriate linked participants to health care providers for primary health care or further screening.

This report includes statistical data which details the results of the Community Health Screening Project and presents demographical information. The data explores health behavior patterns and economic indicators. Sixty-seven percent (67%) of the screening participants reported that they had one or more known diseases. Of previously diagnosed diseases, 50% of the participants reported having one or more cardiovascular diseases which were the greatest of the diseases reported.

Of particular note, the Community Health Screenings Project was not established nor decreed to be a cause and effect study and does not yield such results.



2.0 Background

In April 2005, a consent decree, known as the Supplemental Environmental Projects consent decree, was filed in the United States District Court, Western District of Kentucky, Louisville Division. Exhibit A of this decree stipulated that Public Health Screenings - Western Louisville would be conducted at a designated cost of \$1,000,000. This sum came from the settlement among the U. S. Environmental Protection Agency, the Commonwealth of Kentucky Environmental and Public Protection Cabinet, and the Metropolitan Sewer District over alleged environmental violations. The Louisville Metro Department of Public Health & Wellness entered into an agreement with the state to conduct the Community Health Screenings Project in the designated areas surrounding "Rubbertown." To augment the scope of the project, the Commonwealth of Kentucky committed an additional \$200,000.

Rubbertown is an area with industrial facilities in the vicinity. The facilities include wastewater treatment, chemical and rubber production, electricity production, and other manufacturing plants typical of industrialized areas.

The surrounding neighborhoods identified for the screenings were Cane Run, Riverside Gardens, St. Denis, Chickasaw, Park DuValle, Hallmark, Algonquin, California, Parkland, and Park Hill. These neighborhoods were grouped into four zones which had a designated place, date, and time for health screenings. The Louisville Metro Department of Public Health & Wellness (LMPHW) was in each zone for a period of two weeks for a total of 85 hours dedicated to each of the four areas.

Medical staff screened for high blood pressure, cholesterol levels, diabetes, low iron levels, lead in children under the age of six, respiratory tests for health problems such as asthma and screenings for colon, breast, cervical, bladder and prostate cancers. All tests were performed by licensed, professional medical staff.

The LMPHW established a steering committee to oversee the process and give recommendations. A stakeholders group was formed to assist with planning on the grassroots level and to facilitate the success of the screenings. LMPHW staffed a planning committee to assure a well-designed project. Community healthcare providers committed to the project, as well as the University of Louisville School of Public Health and Information Sciences to assist LMPHW in accomplishing the screenings and tests associated with the Community Health Screenings Project.



3.0 Methodology

3.1 Memorandum of Agreement

The Louisville Metro Department of Public Health & Wellness (LMPHW) entered into a Memorandum of Agreement (MOA) with the Commonwealth of Kentucky Environmental and Public Protection Cabinet to provide health screenings for a designated population that resides in parts of Louisville Metro that surround Rubbertown, an industrialized area. The agreement involved health screenings, providing results, counseling and recommendations for follow-up care. The project is to conclude by June 30, 2008. LMPHW became responsible for designing the health screening processes, developing an implementation plan, organizing available resources to conduct the screenings, collecting and compiling data, and providing outcomes of the screenings. LMPHW enlisted partners from the health community to assist in the screenings and to provide follow-up healthcare.

Planning Structure

LMPHW retained a project director to coordinate the health screenings project, guide the planning committee and oversee the eight weeks of health screenings. The project manager developed a timeline and defined the project tasks. The planning committee members were assigned to one of five working committees: Finance, Logistics, Communication, Staffing, and Enrollment.

Financial Plan

The planning committee worked with the LMPHW business manager to develop a budget that itemized the projected expenses which included tests, laboratory fees, staffing requirements, medical equipment, educational materials and costs such as communication and logistical expenses. The planning committee sought community partners and volunteers to offset staffing expenses.

The committee calculated the value of the total screening package to be \$1,400 per participant. Because of the fiscal acumen of the planning committee and the volunteerism of the community, participants were screened at a cost of \$275 each.

While 2,407 clients screened is considered very well by most estimates, the response was less than anticipated resulting in a surplus of funds. The remaining funds will be used according to the stipulations in the consent decree.



Logistics Plan

The Logistics Committee was responsible for identifying four venues from which to conduct the community health screenings. Each screening site required access to the facility for a 2-week block of time, evening and Saturday access, and sufficient parking for both clients and employees. In addition, there were privacy concerns for specific types of exams and counseling, requiring separate rooms for different functions.

The initial effort to identify community sites such as schools, government owned buildings, community centers, churches, meeting halls, and even vacant store front, was not successful. The most common reasons were due to insufficient space (4800 sq. ft) and the available configuration, as well as, the need to have 2-weeks of continuous operation. The committee then investigated the option of utilizing a large corporate tent. This investigation revealed an improved alternative of a temporary command center, which is utilized by FEMA and others during large natural disasters. The command center utilizes semi-permanent wood wall to construct individual rooms and spaces with an outer canvas shell. Sites were then identified.

Zones

To effectively manage the identified population, the planning team divided the designated area into to four manageable zones. Zone 1 included the neighborhoods of Cane Run, Lake Dreamland, Riverside Gardens, and Saint Denis. The health department scheduled screenings in zone 1 from September 10, 2007, thru September 22, 2007, that was held on the Farnsley Middle School Campus at Lees Lane and Cane Run Road.

The LMPHW moved the health screenings for residents in zones 2 and 3 to Chickasaw Park. Residents in zone 2, the Chickasaw neighborhood, came to the health screenings scheduled October 1-12, 2007. LMPHW provided health screenings for zone 3 residents from October 15-26, 2007. The residents in zone 3 live in the neighborhoods of Park DuValle, Algonquin, and Hallmark.

LMPHW contracted to have a tent erected on the Farnsley Middle School Campus and at Chickasaw Park. This tent easily accommodated the health screenings for zones one, two, and three.

The residents of zone 4 came from the Parkland, Park Hill, and California neighborhoods. The health department arranged for this zone's screenings to take place in St. Stephen Church from October 29, through November 9, 2007.

The Logistics Committee was responsible for providing a venue manager to oversee set-up, manage day-to-day operations, and assure break-down was completed.



Each site had two managers who remained on site during hours of operation and coordinated operations with the screening manager. Requisitions for supplies, vendor contacts, and transport issues and staff support operations were all coordinated by this committee. Emergency plans were created prior to set up of each site. Overall, all sites ran smoothly.

Communication Plan

The memorandum of agreement required the development of a communication plan to create messaging geared to specific area outlined by the consent decree. The residents of these neighborhoods are 75% African American, 21% White, and 1% Latino.

To ensure quality and consistency of our messaging and to aid in campaign creative development, production, testing and implementation, LMPHW contracted with Bill Bossier of Renaissance Creative Services, a minority owned, multicultural advertising agency in Louisville. To test our creative concepts and messaging, the project's steering committee and stakeholders committee functioned as focus groups. Both committees were racially diverse, a mix of professions from private, public and faith-based sectors, and included members who lived or worked in the project's target area. We shaped and finalized the campaign based on the committees' suggestions and feedback.

The overall theme of the communication plan was based on the well-known image and voice of Dr. Adewale Troutman, Director of Health, who urged residents to attend the health screenings. Key messages included: 1) the screening value of \$1,400 but are of "no cost to you" 2) "your health is worth it" 3) publication of a hotline number to drive calls for more information and to make appointments.

Our campaign theme and logo was "**Community Health Screenings Project - Check Your Health**"



The campaign goal was to use a wide variety of tactics to create awareness of the project, drive callers to the hotline to learn more and to schedule appointments if needed and most importantly, to come to the screenings.

The communication strategies included using a telephone hotline, direct mail, print, radio, and television advertising; and grassroots campaigning.



1. Telephone Hotline – 574-5643

The hotline operated from August 17 to November 16. All communications promoted calling the hotline to learn more about the project, announce locations, dates of screenings and hours of operations and schedule appointments when necessary. Three employees staffed the hotline.

2. Direct mail

Each zone received two direct mailings except Chickasaw which received three.

Zone 1 – Cane Run, Riverside Gardens, St. Denis

Zone 2 – Chickasaw

Zone 3 – Park DuValle, Hallmark, Algonquin

Zone 4 – California, Parkland, Park Hill

Direct mail was sent to 14,000 households living in the target area

3. Print Advertising

- *Louisville Defender* – ¼ page four-color ad ran weekly 9/10 – 10/29
- *Southwest Weekly* – ¼ page four-color ad ran the weeks of September 3 and September 10. This publication is specifically geared for the Cane Run, Lake Dreamland Zone.
- On Sunday, December 2, a half page “thank you” ad ran in *The Courier Journal* to express the health department’s appreciation to the community, partners, staff and volunteers.
- The print ads took a similar format as the direct mail piece and addressed neighborhoods, the types of screening, the value of the screenings, the hotline number, as well as the screening location and hours of operation.

4. Radio Advertising

- WLOU/WLLV AM – A 60-second spot ran six times a day for six weeks beginning September 24 and ending November 2.
- WXMA-FM 102.3 “The Max” 60-second ad played 44 times during the week of September 10. The spot aired between 6 a.m. and 7 p.m.
- WGZB-FM 96.5 – A 60 second ad ran 400 times for 8 weeks beginning September 17 and ending November 2. The playing time of these ads rotated throughout each day but none played after midnight.
- WMJM-FM 101.3 - 60 second ad ran 488 times for 8 weeks beginning September 17 and ending November 2. The playing time of these ads rotated throughout each day but none played after midnight.



Dr. Troutman recorded the 60 second radio ad over a musical background as an urgent and important message. To be consistent with all other tactics, he used consistent messaging calling out neighborhoods, specifying the types of screenings, their value, and the importance of attending as well as promoting the hotline.

5. Television Advertising

- WDRB Fox 41 – Ran 10 spots September 10 – 23 placing them during the most frequently watched shows including morning and evening news.
- WBKI the CW Network – 359 spots aired for 9 weeks beginning August 27. Spots were rotated throughout the day focusing on most-watched shows such as news, Oprah and other shows.
- Metro TV channel 25 –aired the TV spot numerous times throughout September and October at no cost.

6. Grassroots Campaigning

Dialogic Phone Calls. The dialogic system, an automated phone calling system, can be programmed with specific messages then programmed to call households with landlines throughout the city. This is especially useful in times of emergency or disaster but has been used for other important instances as well. The system is housed in Emergency Management Services. Dr. Troutman recorded a brief message explaining the screenings, urging residents to attend, and encouraging them to call the hotline. Two rounds of calls were made in each zone during the week before the screenings took place in that zone. Recipients heard the message live when they answered the call or the system left the message on voicemail or answering machine. A total of 17,021 calls were attempted throughout the four zones. 9,722 of those were completed.

Stakeholders Committee. The Stakeholders Committee gave great insights and suggestions into the creation and implementation of the campaign. Additionally, the committee members were great advocates in spreading the word whether it was securing speaking engagements, distributing flyers and posters, or email blasting the information to their contacts, family and friends. Several volunteered at the screenings.

Speaking Engagements. Members of the LMPHW Planning Committee spoke to more than 12 groups, including Councilwoman Mary Woolridge’s District Community Forum, Rubbertown Community Advisory Council, West Jefferson Community Task Force, Making Connections - Metro United Way, and Chickasaw Federation. At each speaking engagement, flyers were distributed and attendees were urged to distribute more.

Email Blasts. Various government agencies, nonprofit organizations and faith based entities helped promote awareness by distributing informational flyers via their



memberships or contacts. Some of those included MSD, Air Pollution Control District, Cane Run Neighborhood Place, Bridges of Hope Neighborhood Place, Dept. of Public Health and Wellness, Shively Area Ministries, the Urban League and Cane Run Road Business Association.

Flyers and Posters Distributed. In addition to distributing flyers and posters at speaking engagements and through our stakeholders, numerous volunteers and employees joined in the effort.

- In the Cane Run area we went door-to-door to numerous businesses and asked them to display the poster and flyers.
- We also distributed flyers at the California Farmers Market, LMPHW clinics as well as the Cane Run and Bridges of Hope Neighborhood Places.
- During home visits, the HANDS and Healthy Start community health outreach workers took flyers to their clients who live in the target area and encouraged them to attend.
- Several churches asked for flyers and posters to promote the screenings to their memberships.

Signage. A large “mobile” billboard was placed at the entrance to each screening site to promote the hotline and hours of screening.

- Banners were created and hung at the site.
- Yards signs were used to mark the site.
- Operations based indoor and outdoor signage that was consistent with all communications pieces hung at the sites.

Newsletters. The LMPHW community newsletter, *Health Matters*, included a story on the Community Health Screenings Project and Councilwoman Judith Green included a story in her district newsletter.

Yard Signs. Yard signs were created as a unique way to help spread awareness of the project. As each client left the screening site, we inquired if they would like to place a sign in their yard to let their neighbors know about this important project.

Incentive Bags. The stakeholders recommended incentives for the project because it was their opinion that most people are drawn to events where they receive prizes, gifts, or other incentives. When participants completed their screenings, they received an incentive bag that included a t-shirt and some other trinkets such as a pill case, a pen, a jar opener, a notepad, a chip clip, and a telephone guide to the programs and services of the Department of Public Health and Wellness. The bag also served as a useful way for them to carry health education materials and any medical paperwork they acquired during the screening process.



Website. A special section about the project was created on the health department website. It included background, frequently asked questions, a map of the zones and screening locations, the times of operation, the hotline number, links to our partners helping with the project as well as a way to email for further information or answers to questions. Louisville Metro Government’s website also featured information on the project.

Other. The health department’s public information office (PIO) issued press releases and media advisories to encourage news media to cover the launch of the project as well as a midway progress report. The PIO sent a press release to the media to encourage attendance before the project ended. All TV, radio and print outlets were very supportive and provided a great deal of news coverage of the project. In addition:

- The *Louisville Medicine* and *Medical News* published articles about the project.
- St. Stephen Church, a host site for the screenings, showed our TV commercial to it’s membership before several services
- Dr. Troutman promoted the screenings “live” on the Sunday radio show “Street Talk” on 96.5
- Dr. Troutman promoted the project on several of his weekly call-ins to WLOU/WLLV AM

Staffing Plan

Screening hours were varied in an effort to accommodate participants, and included evenings and Saturdays. Clients were seen by appointment and on a walk-in basis. Although a focus area was identified as those who reside in the area of Rubbertown, no one was turned away who came for a screening.

The medical staff conducted screenings that included high blood pressure, cholesterol levels, diabetes, low iron levels, lead in children under the age of six, height and weight, respiratory tests for health problems such as asthma (spirometry), screenings for breast, cervical, prostate, bladder, and colon cancers. Individual educational counseling and educational materials were provided as appropriate. Referrals were given for abnormal results identified on site.

Each of the three screening sites was divided into 4 functional areas. The screening site manager worked in conjunction with the logistics site manager for day-to-day operations. The staff included LMPHW employees, clinical volunteers, and community volunteers. Each of the 4 functional areas (registration, clinics 1 and 2, staff and volunteer) worked under the supervision of a designated leader.



Functional areas and services

Registration area

Included greeter and check-in functions, health history, and check-out.

Clinic area 1

Blood pressure, height and weight, spirometry, health education station.

Clinic area 2

Colon cancer screening, prostate screening, breast and cervical cancer screening, lab.

Staff & volunteer area

Check in and check out of staff and volunteers and general management of staff/volunteer accommodations.

Staffing for the screenings was multidisciplinary and consisted of LMPHW staff, community volunteers, and staff from partnering organizations and agencies. Daily staffing consisted of approximately 36 persons. Both self selection and assignments were used in the staffing process. Job descriptions were developed for each position and an orientation provided.

Health Education

Health education, an integral part of the community health screening events, encouraged healthy behaviors through interactions with participants and printed materials on a wide variety of health topics. Health educators were trained to assist with colon cancer screening and spirometry histories, which provided ample opportunities to promote healthy behavior. With training from an endoscopy nurse and materials provided by the Colon Cancer Prevention Project, health educators spoke with community participants about the importance of colonoscopies in the prevention and early detection of colon cancer. During the discussions about family history and personal behavior, educators suggested options for improving related health behavior, including increasing fruit and vegetable consumption. Similarly, health education during the completion of the spirometry history included discussions about smoking history, previous successful attempts at stopping smoking, and new options available for smoking cessation.

Each of the screening sites hosted a health education materials table which included attractive, readable materials on health behaviors that significantly impact, prevent or lessen chronic diseases, including hypertension, diabetes and arthritis. Hands-on displays provided strong visual cues for positive behavior related to eating, smoking and blood sugar control. Among the most popular of these were jars



containing liquids labeled, a “Year’s Worth of Tar” and “Year’s Worth of Phlegm”. Screening participants also commented frequently on the “Healthy and Unhealthy Meals” displays, which contained realistic food displays. Other displays included fat content of specific foods, the consequences of obesity on major organs, and ketchup bottles designed to show the difference in blood thickness caused by elevated blood glucose.

Participants picked up the Department’s “Health and Wellness Class Schedule,” which lists free exercise opportunities, and classes for diabetes management, healthy eating, and weight loss. Schedules of Cooper Clayton method smoking cessation classes were shared both on the table and in spirometry history-taking sessions. Other educational materials included lead safety and children, Healthy Start program information, family planning classes, cardiovascular health, stroke prevention, sexually transmitted diseases and HIV/AIDS, pandemic flu, diabetes, healthy eating and exercise. Based on the frequency of restocking print materials, the most selected were brochures entitled, “25 Ways to Add Fruits and Vegetables to Your Day,” “21 Ways to Add Physical Activity to Your Day” and the “Losing Weight for People Who Hate Diets”.

Enrollment Plan

The enrollment process for the Community Health Screenings Project consisted of several parts: development of an enrollment process for participants, development of a hotline for appointment making and question answering and development of a records process for all who are screened.

Enrollment process

A method was developed to capture relevant participant information. Enrollment was the first step in the screening process. The individual’s information such as name, address, date of birth and other information were gathered via the hotline using a registration form specifically developed for the screening project

Screening hotline

The planning committee determined there was a need for a hotline for participants’ calls. Because of the immense community response which inundated the capacity of the line, the purpose of the hotline was re-defined as an informational hotline rather than an appointment scheduling hotline. Callers continued to make appointments for specialty services such as urology screening, breast and cervical screening. All others were encouraged to be “walk ins” at the screening sites during the posted times of operation. Three temporary workers operated the phone line to answer questions or schedule appointments. LMPHW staff forwarded reminder cards to all who scheduled appointments.



Records process

The records process for the screening was initiated during the enrollment process. The information on the participants' registration forms was initially asked by the temporary workers who operated the hotline. This function also was refitted when the hotline became an informational line. The registration forms were completed over the hotline for those who made appointments. The forms then were filed and delivered to the appropriate site at the appropriate time to begin the medical record. Staff completed the registration form in person when participants walked into the screening site. The remainder of the record keeping was completed as the participants went through the screening stations.

The medical record forms were uniform. All records had sections for health history and assessment, laboratory work, spirometry, urology, breast & cervical cancer and colon cancer education. At the close of each day of screening, all medical records were secured confidentially and returned to the health department offices for further review and follow up.

4.0 The Health Screenings

The language of the Supplemental Environmental Projects consent decree stated that LMPHW "perform public health screenings for residents of neighborhood adjacent to the industrialized areas of the western portion of Louisville Metro... The parameters of the screening shall include the types of health concerns most commonly associated with living in close proximity to industrialized areas including certain forms of cancer." Based upon the language of the decree, the LMPHW consulted experts to determine specific health screenings that would meet the established criteria. The health screenings selected included the following:

- Blood pressure
- Spirometry
- Blood Cholesterol
- Blood Glucose
- Urine test for hemoglobin
- Blood Hemoglobin – females
- Blood Hemoglobin – males
- Blood Triglycerides (fasting adults)
- Clinical Breast Exams
- PAP Smears (females)
- PSA Blood Test (males)
- Prostate Exam (males)
- Blood Lead Level (children)
- Colon Cancer Screening



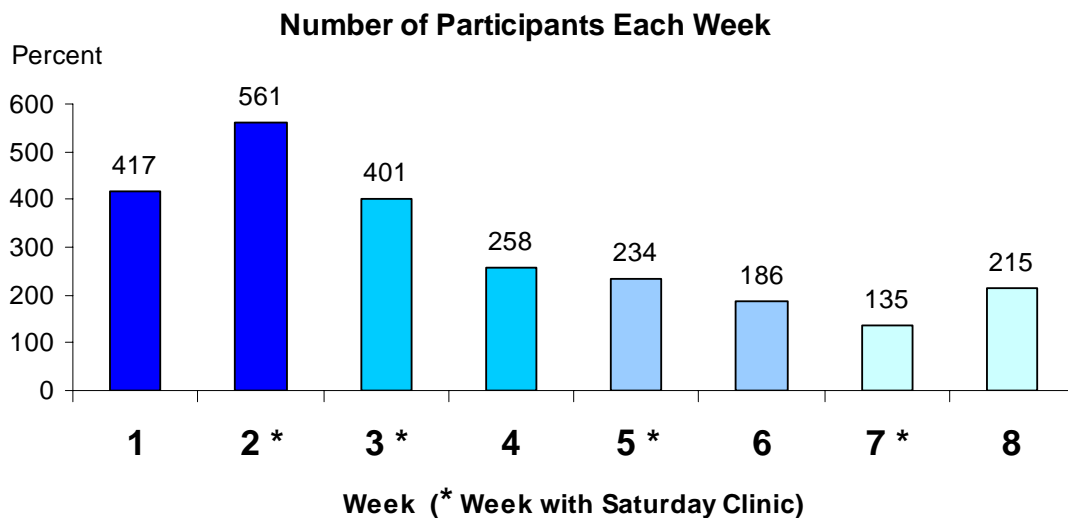
4.1 Screening Participant Data

Several methods were used to promote awareness of the health screening opportunity among the residents of the court ordered target area. However, anyone who came to the screening sites could participate. An important fact to remember is that the participants are not representative of either the people living in the target area or the people of Louisville Metro (LM). Participants in the health screening project were those individuals who both learned about the health screening project and elected to participate. In addition, each participant who attended also elected which screening tests in which to participate.

Two thousand-four hundred and seven (2,407) people participated in the health screening event. The target area had approximately 31,555 residents. If all of the participants had lived in the target area, the participation would represent about 8% of the target population. However, analysis of the current address for each participant determined that only 1,206 participants (or about 4% of the target population) currently lived in the target area.

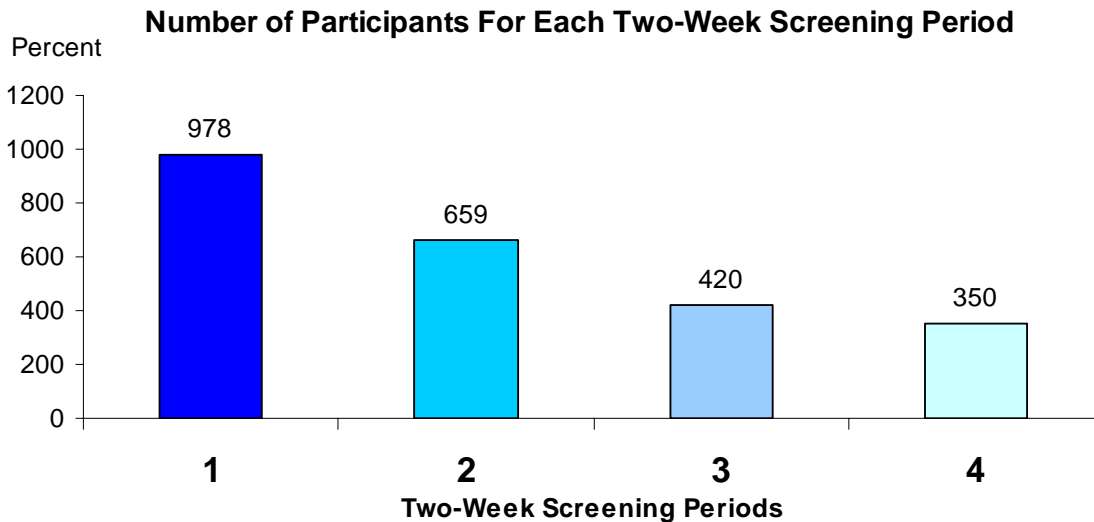
The target area was divided into four zones of about equal population. The closest, suitable site in each zone was used for a two-week period, with the residents of that zone receiving additional publicity to promote awareness. Each zone had one week with Saturday clinic hours.

Below is a graph of the participation by each week. Except for the final zone, the week with the Saturday clinic had more participants than the week without the Saturday clinic.





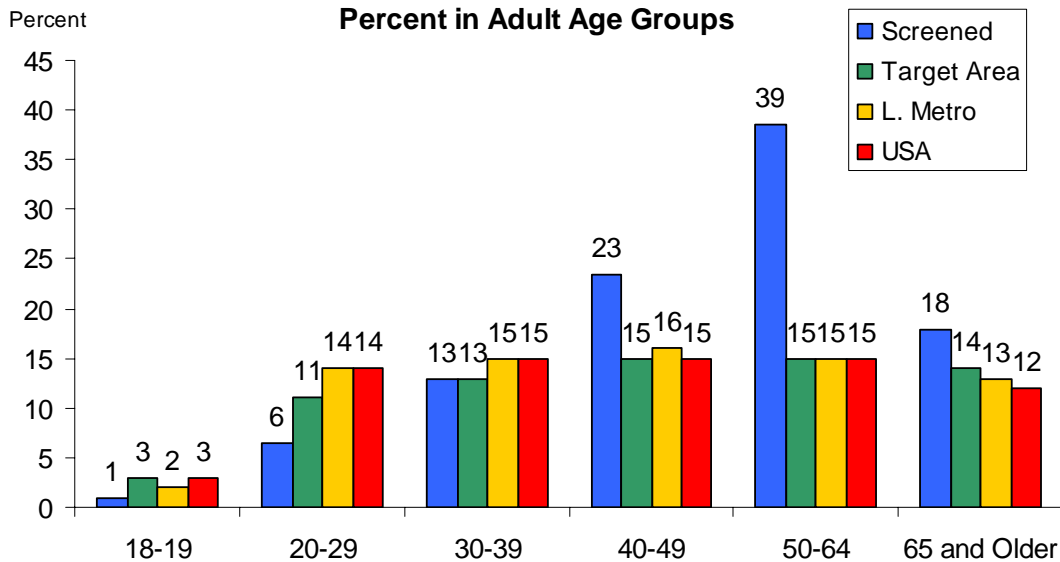
There was a steady decrease in participation as the screening project progressed from Zone One to Zone Four. The first zone had nearly 1,000 participants in the two-week period of screening for that zone. The second zone had 659 participants, followed by 420 for zone three and 350 for zone four.



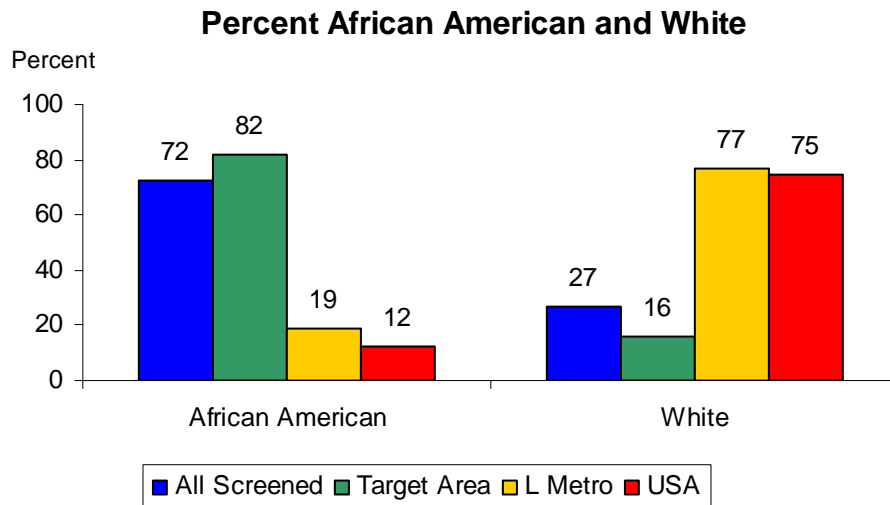
4.2 Demographics

Of the 2,407 screening participants, 2,309 were adults and 98 were children. Based on Census data¹, the adult age distribution of the adult population in the target area, Louisville Metro, and the United States (USA) are very similar. In the graph below and throughout this report, the blue bars represent the percent of screened adults (those participating in the health screenings) in each age group, the green bars represent the percent of the adult population in the target area, gold represents the Louisville Metro adult population, and red represents the United States adult population.

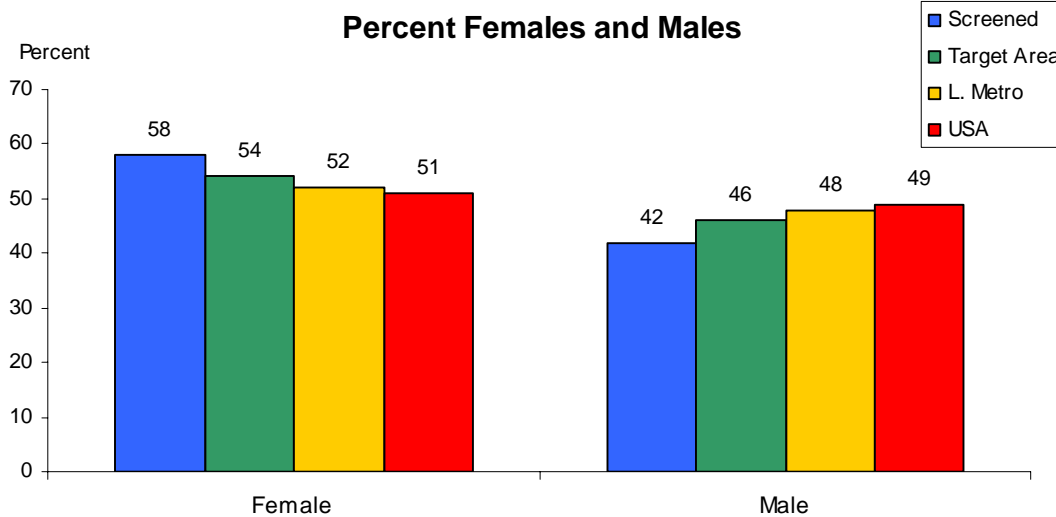
People age 40 years and older attended the screening event at a higher proportion than they represent in the comparison populations. In fact, the majority of the people participating in the screenings (62%) were between the ages of 40 and 64 years of age, which is much larger than their proportion in the comparison populations (about 30%).



Seventy-two percent (72%) of the participants in the screening project were African Americans and 27% were Whites. According to census data¹, African Americans comprise 82% of the population in the target area, 19% of the Louisville Metro population and 12% of the United States (USA) population. The percent of those screened who were African American was similar to, but less than, the percent in the target area population.



Slightly more females attended the screening event compared to their proportion in comparison populations.¹



In summary, the screening participants tended to be older than the target population, with those 40 years of age and older significantly more likely to attend. Women and Whites attended at a slightly higher rate than their representation in the target area population.

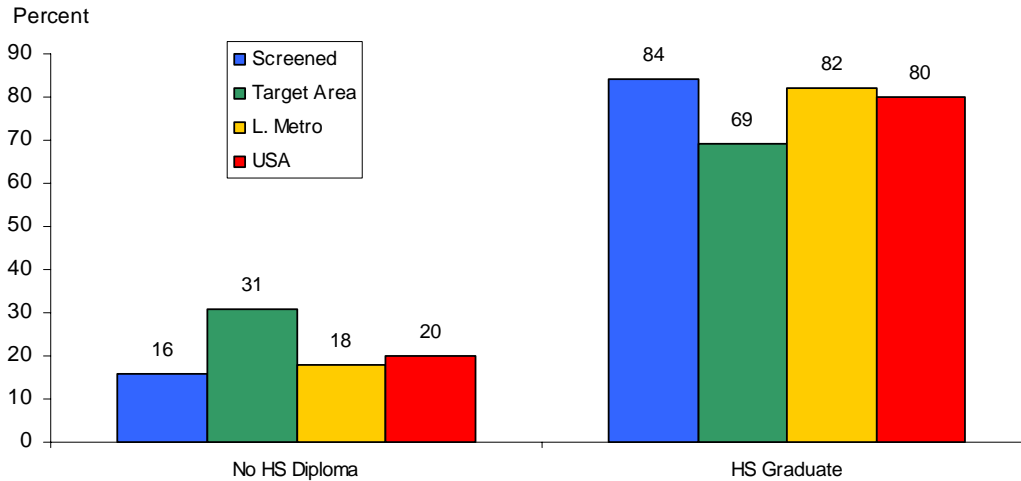
4.3 Economic Indicators

There is a strong positive relationship between economic indicators and health status. A lower economic status can create health problems associated with poor housing, an inadequate diet, and a lack of access to health services.

One economic indicator is education. Of those screened, 84% were high school graduates. This percent is higher than the percent of high school graduates in Louisville Metro and the United States, and much higher than the percent in the target area.¹ Education has been found to be a motivating factor for people seeking health care and engaging in healthy behaviors.

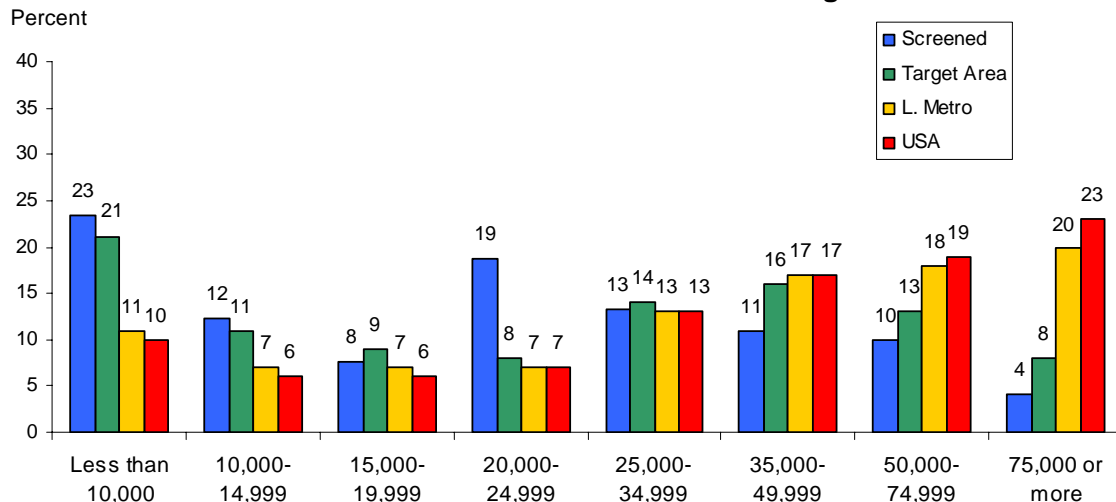


Percent High School Graduates



Income is another economic indicator. Twenty-three percent of those screened reported an annual household income less than \$10,000, compared to 21% for the target area and 11% for Louisville Metro.¹ Overall, more people in lower income categories participated in the screenings than their proportion in the population. Limited financial resources can be a factor that encourages people to take advantage of an opportunity to receive health related testing and education at no charge.

Percent in Annual Household Income Categories

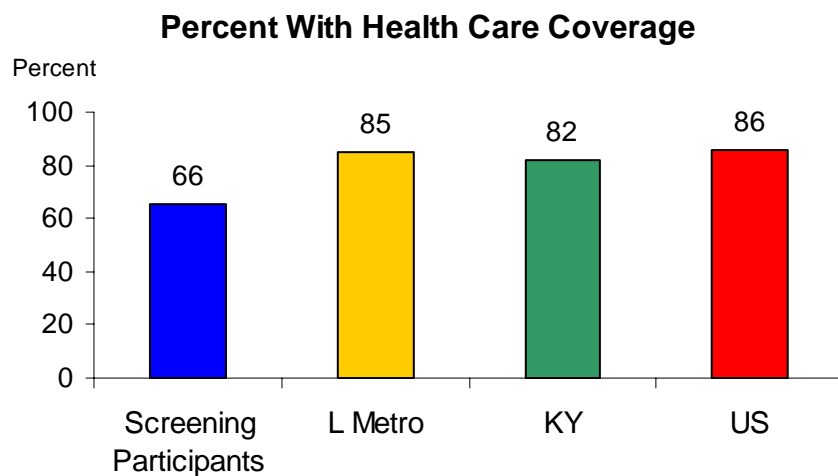


Participants in the screening project tended to have a higher educational attainment and a lower income than the target area population.

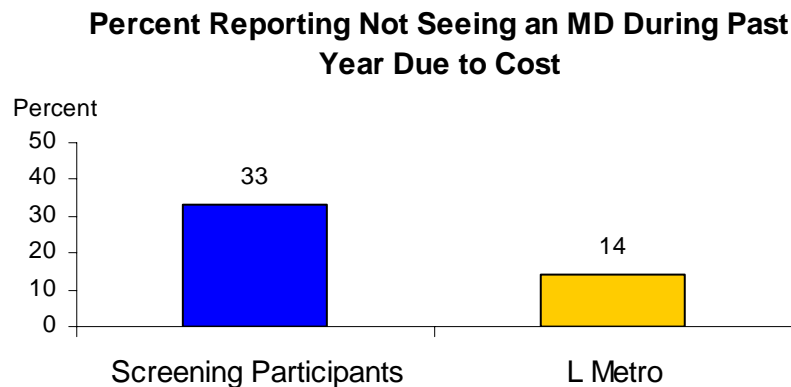


4.4 Health Related Indicators

The percent of the population having some type of health care coverage is an indicator of access to health care services. Because this is a question that is asked on standardized surveys, other data are available for comparison to the participant group.² Sixty-six percent of screening participants reported having health care coverage, compared to 82 to 86% reported in surveys of adults in Louisville Metro, Kentucky, and the United States. Not having health care coverage, or having inadequate coverage, is a motivator to attending health screening events where there is no charge for services.

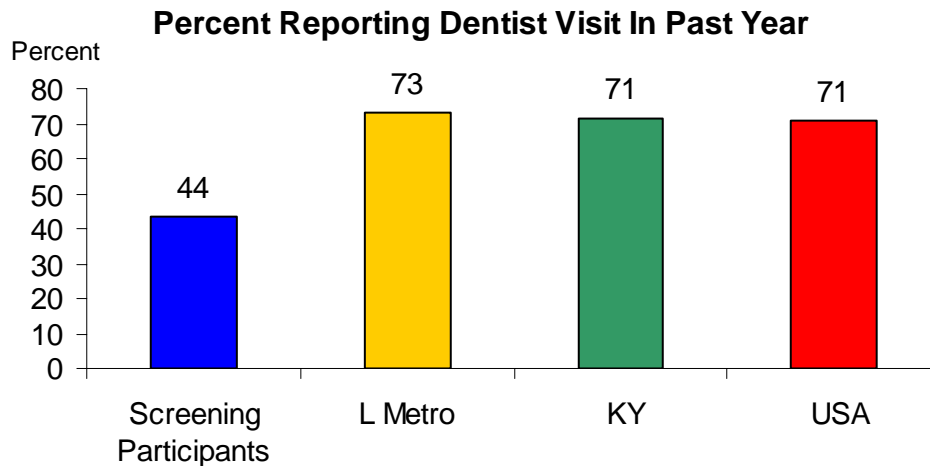


Another standard survey question is: “Was there a time during the last year when you needed to see a physician but did not because of the cost?” One third (or 33%) of all the screening participants reported not seeing a physician during the past year due to cost, compared to only 14% for the Louisville Metro adult population.²

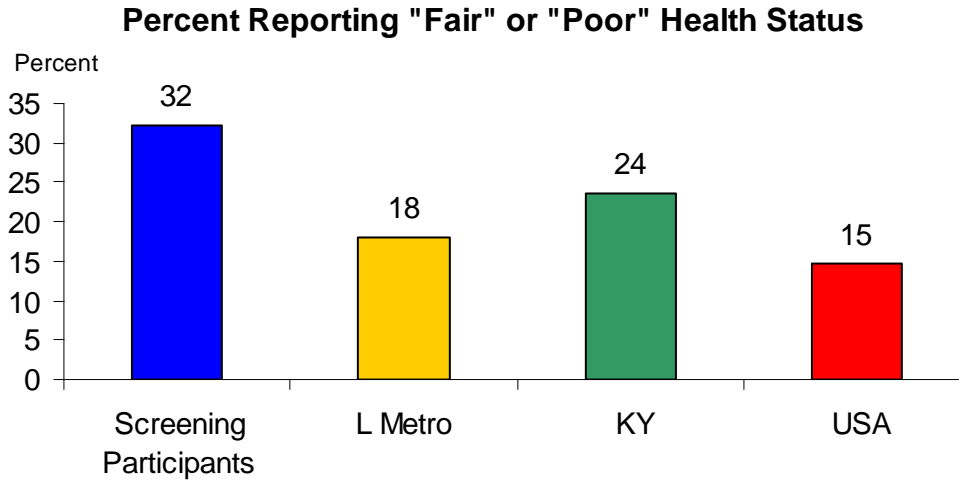




Regular visits to a dental health professional promote the prevention and early detection of dental problems. Early detection of dental problems will result in better oral health outcomes. Approximately 44% of screening participants reported visiting a dentist in the past year, compared to 71 to 73% for Louisville Metro, Kentucky, and the United States.² The regularity of dentist visits is an indicator of one’s access to dental health care and the importance placed on preventive health care.



Another standard question used to measure health status is: “In general, is your health Excellent, Very Good, Good, Fair, or Poor?” In surveys of adults, the percent reporting “Fair” or “Poor” health status ranges from 15% in the US to 24% in Kentucky (Louisville Metro is 18%).² However, 32% of the participants in the screening project reported fair or poor health. Awareness that your health status is at the bottom of the scale may be a motivator to seek health assessments at a health screening event.



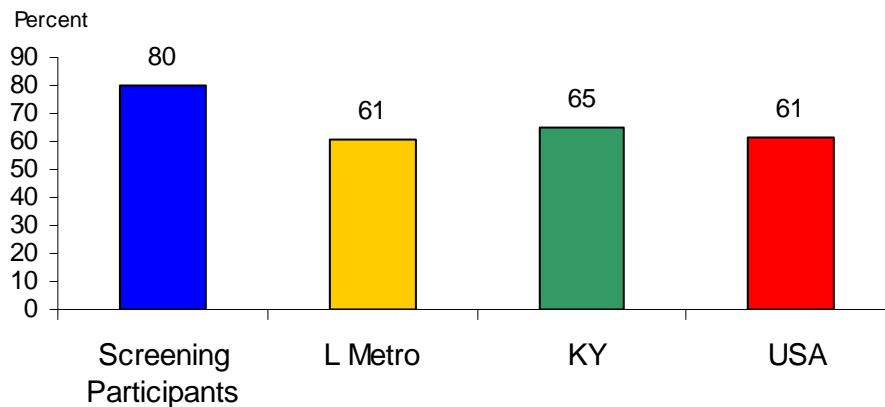
The participants in the screening project were more likely to be without health care coverage and to report their health status as “fair” or “poor” than comparison populations. They also tended to have a higher rate of not seeing a physician due to cost and not visiting a dentist during the previous year than expected from the comparison populations.

4.5 Behavioral Risk Factors

Heart disease is the leading cause of death in Louisville Metro and the United States. Being overweight or obese is a major risk factor for heart disease. Obesity also increases the risk of having a stroke, high blood pressure, and diabetes. On health surveys, respondents are frequently asked to provide their height and weight for use in determining if they are overweight or obese. The participants in the health screening project were asked to have their height and weight measured and recorded for the purpose of making that same determination. Eighty percent of screening participants were overweight or obese, compared to approximately 61 to 65% for Louisville Metro, Kentucky, and US populations.²

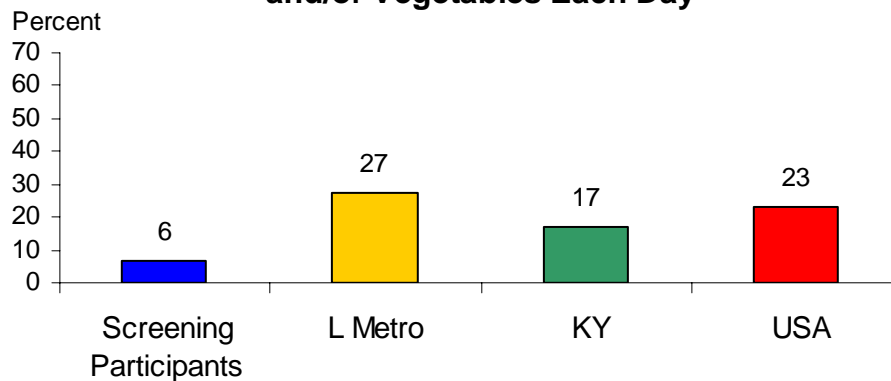


Percent Overweight or Obese



Proper nutrition is important to an individual’s ability to prevent diseases and the complications from existing diseases. It is recommended that people consume five or more servings of fruits and/or vegetables every day for optimal health. Six percent of the screening participants reported eating five or more fruit and vegetable servings each day. This is significantly lower than that reported in surveys for Louisville Metro and the United States.²

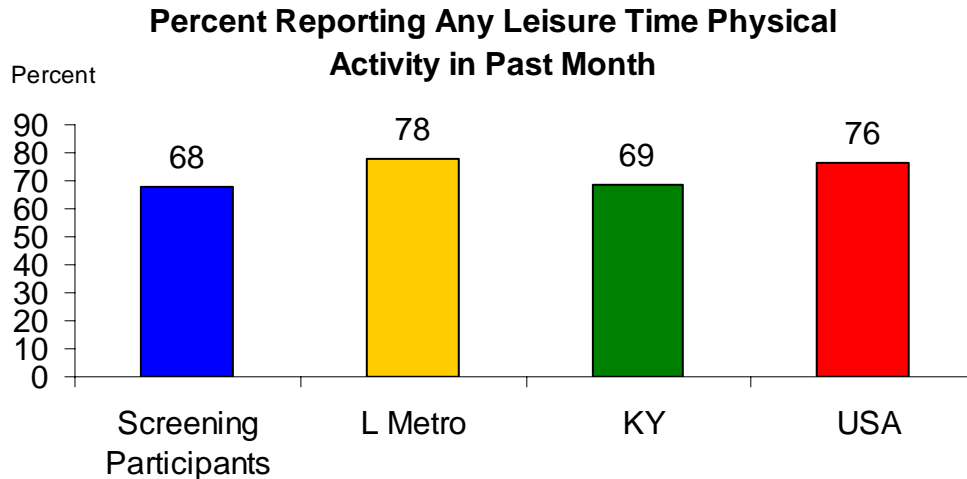
Percent Reporting Five or More Servings of Fruits and/or Vegetables Each Day



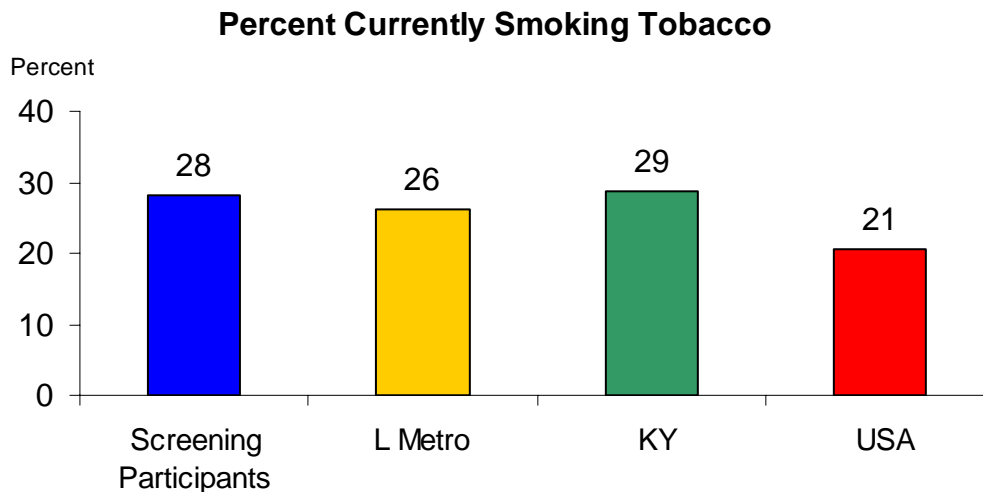
Exercise can reduce overweight and obesity levels as well as the incidence of high blood pressure, diabetes, and high levels of cholesterol and triglycerides in the blood stream. A standard question to measure leisure time activity is: “During the past month did you engage in any physical activity outside of your job?” Sixty-eight percent (68%) of the screening participants reported having any leisure time physical activity in



the past month. While this is similar to the percent for Kentucky adults, it is lower than the percent for Louisville Metro (78%) and for the US overall (76%).²



Cigarette smoking contributes to the occurrence of stroke, heart disease, and lung cancer.³ Current tobacco smoking rates are similar among the screening participants (28%), Louisville Metro adults (26%), and Kentucky adults (29%).² However, the smoking rate is lower for the US overall (21%).²



The screening participants engaged in less healthy behaviors than comparison populations. They had a higher rate of individuals who were overweight or obese, a lower rate of individuals who ate adequate servings of fruits and vegetables, and a



lower rate engaging in leisure time physical activity.

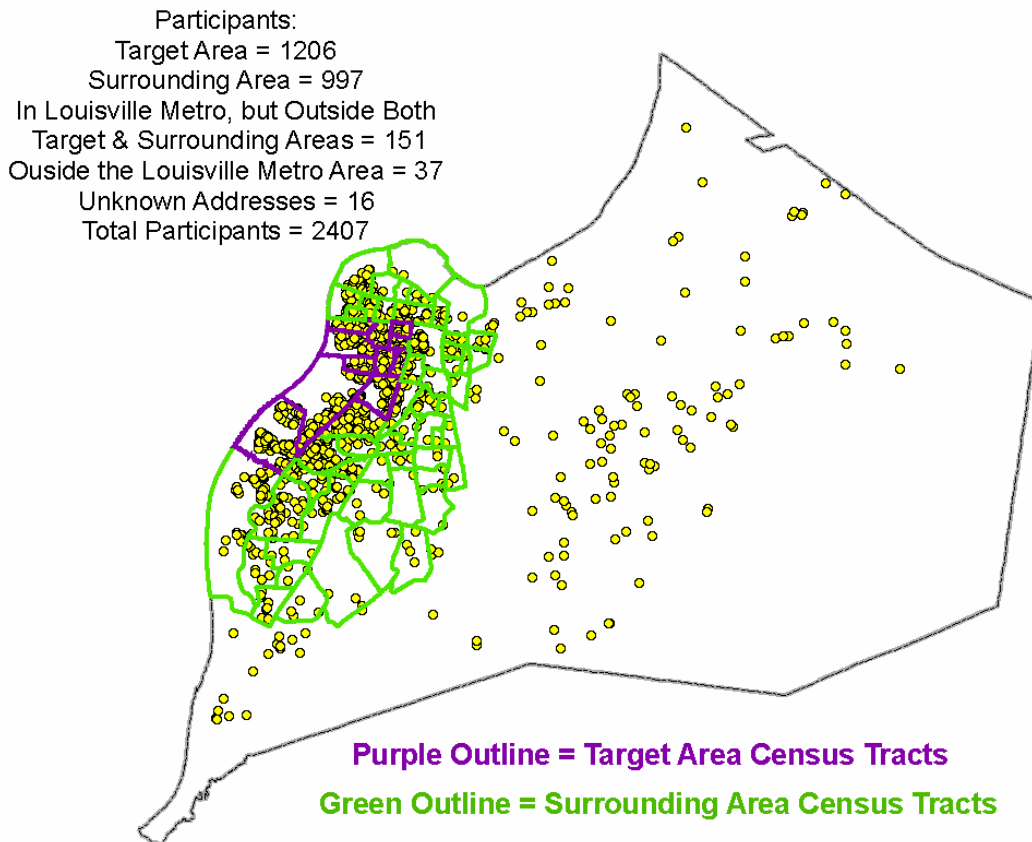
4.6 Screening Participant's Residence Areas

Geographic Information System (GIS) analysis determined that a large number (997 or about 41%) of the participants lived in an area surrounding, and in close proximity to, the target area (see map below).

The screening participant's were categorized into the following areas:

- The **Target Area** as defined by the court decree (1206 participants)
- The **Surrounding Area** around the target area (997 participants)
- In Louisville Metro, but the area outside the target area and the surrounding area (**LM Outside Area**) (151 participants)

In addition to the people living in these three areas, 37 participants lived outside of the Louisville Metro area and 16 participants reported addresses within Louisville Metro that were not valid in the GIS system.





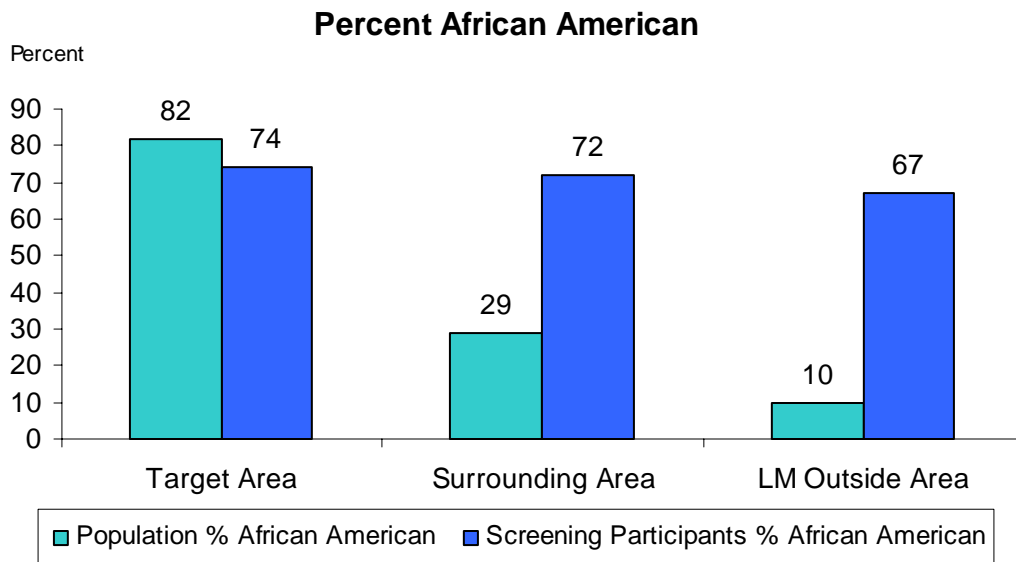
4.7 Demographic and Social Indicators By Residence Area

When analyzed by the area of the community in which the participants resided, there were several demographic indicators where the screening participants were significantly different. A significant difference is a difference that is not likely to occur due to chance.

Table 1. Population Demographics of the Community Areas¹

Population Parameter	Target Area	Surrounding Area	LM Outside Area	L. Metro
Total Population	31,555	201,684	460,365	693,604
Percent White	16	67	86	77
Percent African American	82	29	10	19
Percent 65 years +	14	13	14	14
Percent Income < \$10,000	21	18	7	11
Percent HS Graduates	69	72	87	82
Percent Females	54	52	52	52

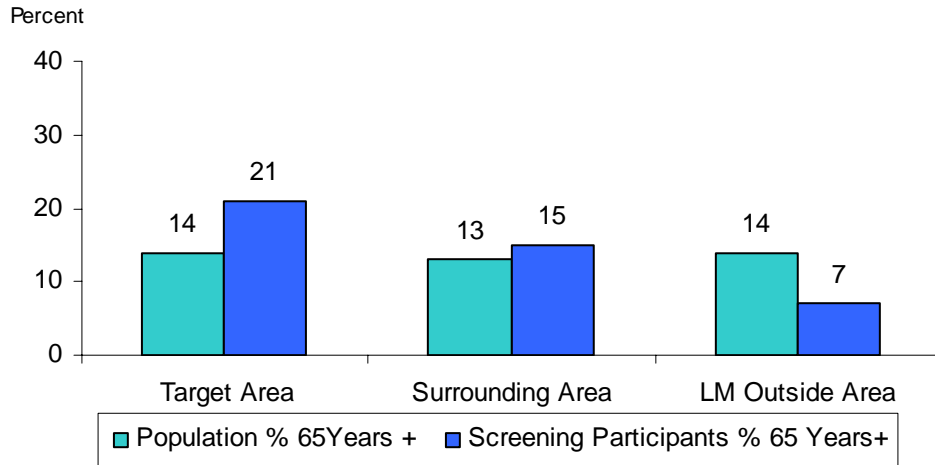
Except in the target area, African Americans participated at a much higher rate than their representation in the population.¹ The graph below compares the percent of the population to the percent of the screening participants in each area who are African American.



People age 65 years and older were significantly more likely to attend the screening if they lived in the target area and least likely to attend if they lived in the LM Outside Area. The graph below summarizes the percent elderly in the population compared to the percent of elderly participants in each areas.¹

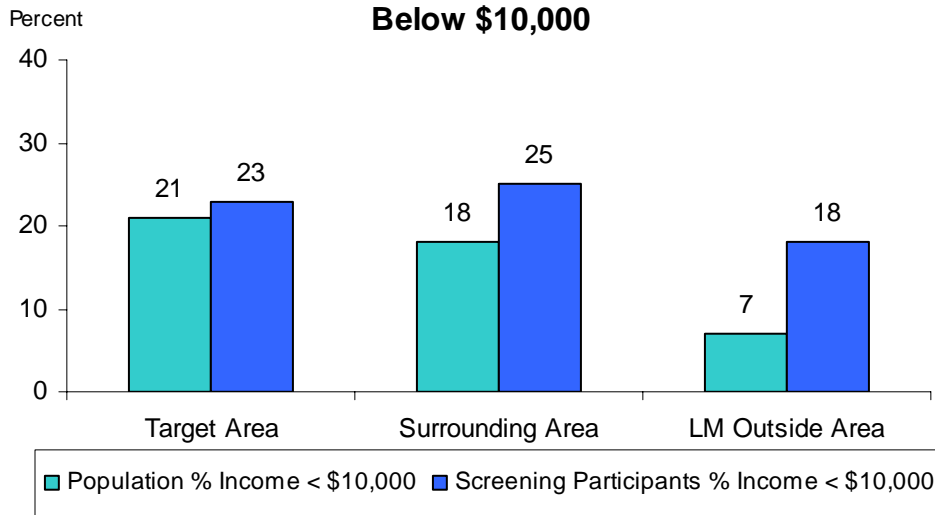


Percent Age 65 Years & Older

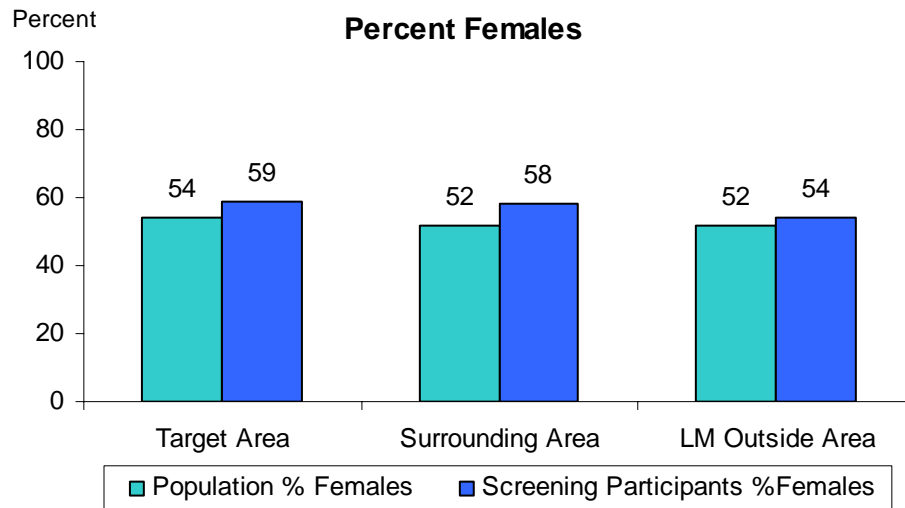
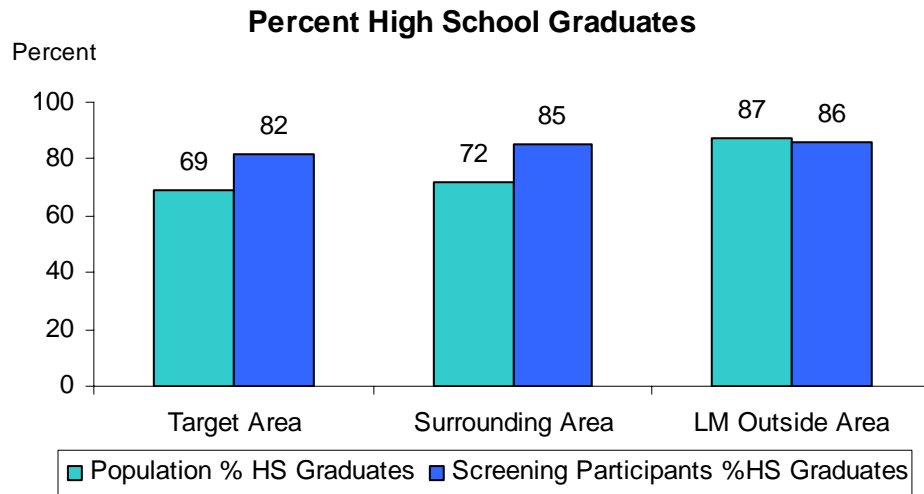


Lower income people were more likely to attend the screening event than their proportion in the population. This is especially true in the LM Outside Area, which was the farthest distance from the screening sites.

Percent Households with Annual Income Below \$10,000



While the educational level and gender of the screening participants tended to be higher than their proportion in the population for each community area, the differences between the three areas in the community for education and gender were not significant.



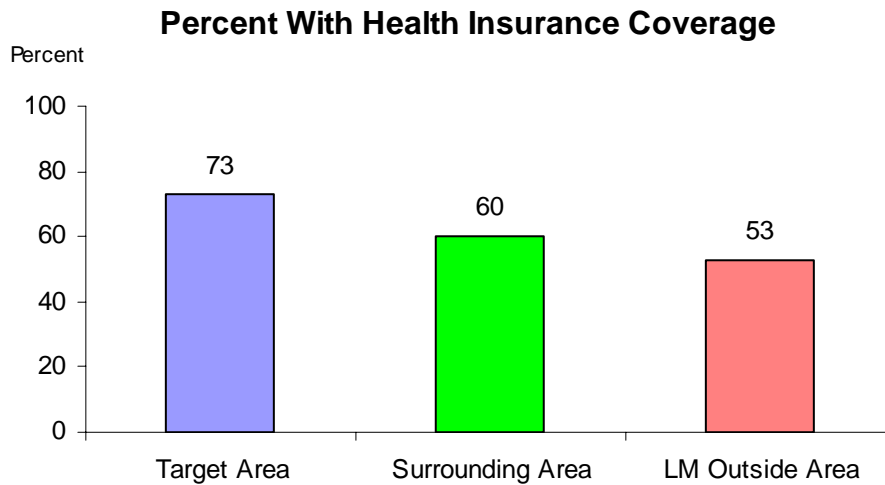
4.8 Health Related Indicators by Residence Area

When analyzed by the area of the community in which the participants resided, there were several health related indicators where the people who chose to participate in the screenings from these three areas were significantly different. A significant difference is a difference that is not likely to occur due to chance.

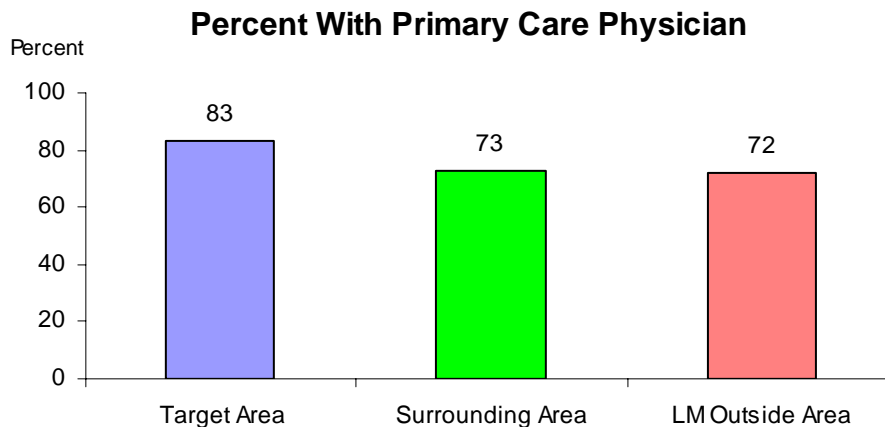
The percentage of people who had health coverage was 73% for the target area, 60% for the surrounding area, and 53% for the area that is outside both the target area



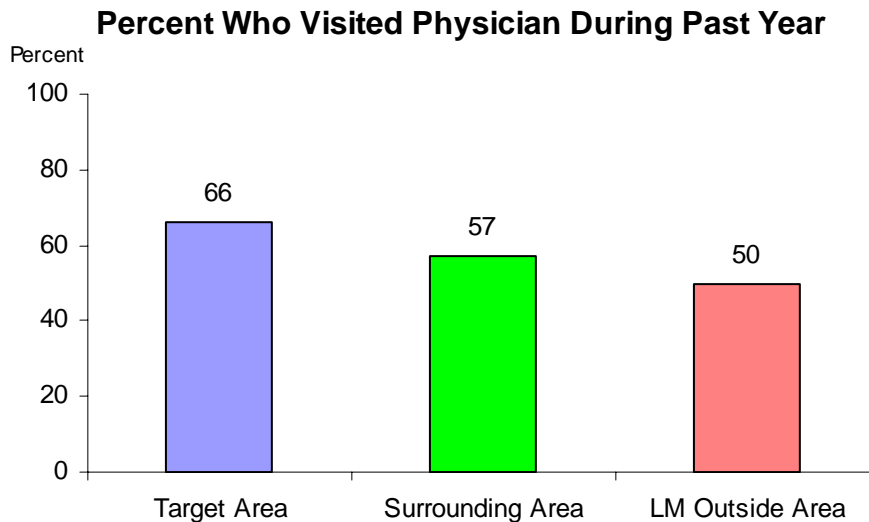
and the surrounding area. This means that the greater distance the person traveled, the less likely he or she had any health coverage. The lack of health coverage was likely a motivator to travel a greater distance to participate in the health screening.



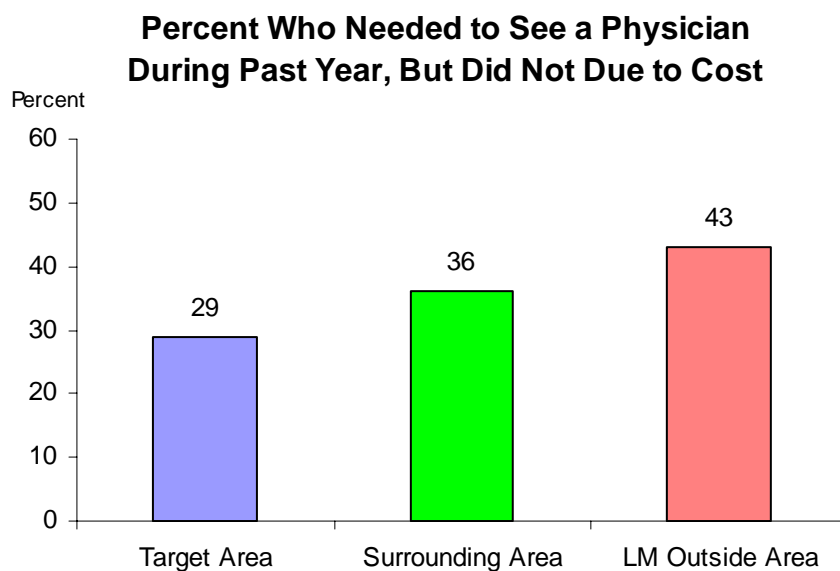
Similarly, the greater distance the person traveled, the less likely he or she was to have a primary care physician.



Whether the participant had seen a physician during the past year was significantly different by their residence area. People traveling a greater distance were less likely to have seen a physician during the past year.



Whether the participant had needed to see a physician during the past year, but did not because of cost, was significantly different for participants from the three residence areas. People traveling a greater distance were more likely to have needed to see a physician during the past year, but did not due to the cost. This likely influenced their decision to travel a greater distance to participate in health screening and education at no charge to them.





4.9 Screening Participant’s Disease History

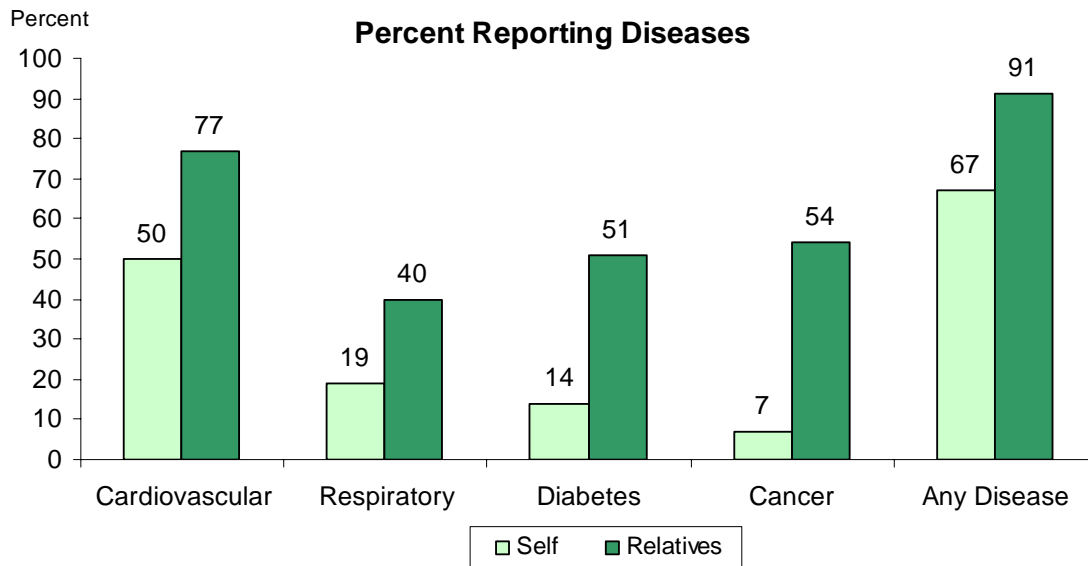
The leading causes of death in Louisville Metro and the United States are heart disease, followed by lung cancer, stroke, and chronic obstructive pulmonary disease.⁴ Participants completed a disease history, including these diseases, and reported which diseases they and their blood relatives had. Table 2 lists each disease, the percent of participants reporting having the disease, and any available prevalence rates for the disease.

Table 2. Disease Prevalence Rates

Disease	% Participants With Disease	Comparison Prevalence Rates ^{5,6}
Hypertension	38.7	23.5
Heart Disease	9.4	11.0
Stroke	3.9	2.6
Elevated Cholesterol	25.0	
Other Cardiovascular	2.0	
Diabetes	13.8	7.9
Asthma	14.7	11.0
Emphysema	2.9	1.8
Chronic Obstructive Pulmonary Disease	3.3	
Other Lung Disease	2.0	
Lung Cancer	0.5	0.1
Colon Cancer	0.3	0.2
Prostate Cancer (Males)	2.7	2.0
Breast Cancer (Females)	2.5	2.0
Cervical Cancer (Females)	1.4	1.2
Skin Cancer	1.0	
Bladder Cancer	0.2	
Brain Cancer	0.1	
Other Cancer	1.9	
Any Cancer	7.2	7.2
Stomach Disease	10.5	Ulcers 6.6
Blood Disease	2.6	
Skin Disease	3.8	
Liver Disease	2.2	1.5
Autoimmune Disease	2.5	
Brain Disease	1.5	
Nervous System Disease	3.0	
Kidney or Bladder Disease	5.4	Kidney 1.5
Other Disease	6.5	



Half of the participants reported having one or more cardiovascular diseases (which included heart disease, stroke and other cardiovascular diseases), 19% reported respiratory diseases (which included acute and chronic obstructive pulmonary diseases and lung cancer), 14% reported diabetes, and 7% reported cancers. When reporting if one or more of their blood relatives had any diseases, 77% reported relatives with cardiovascular diseases, 40% reported relatives with respiratory diseases, 51% reported relatives with diabetes, and 54% reported relatives with cancers. Sixty-seven percent of the screening participants reported that they had one or more known diseases and 91% of the participants reported that they had one or more blood relatives with known diseases.



4.10 Screening Tests

Table 3 reviews each screening test, the number of participants who completed that test, the number of tests completed on participants without a known, related disease, the criteria for interpreting an abnormal result, and the estimated disease prevalence rate (the expected rate in the population) for the associated disease or diseases.



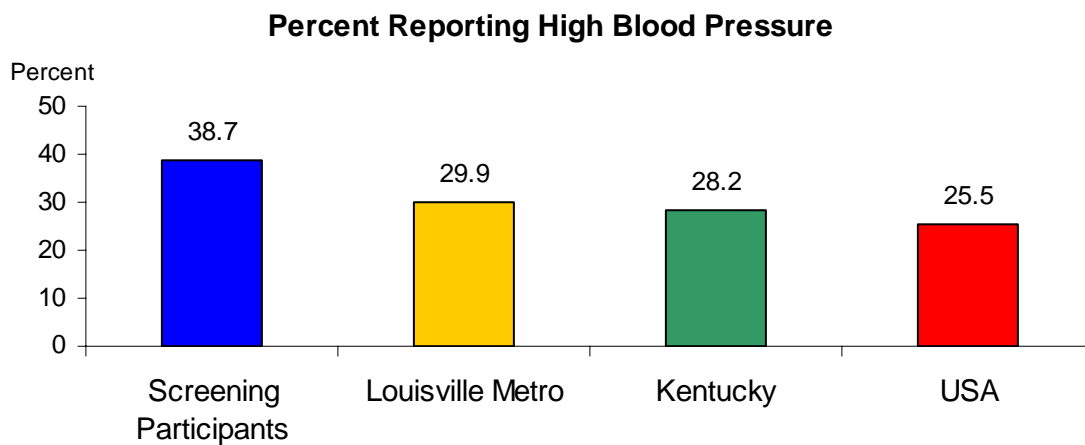
Table 3. Screening Test Results and Comparison Prevalence of Associated Diseases

Screening Test	# of tests completed	# tests on those without known history of related diseases	% of those W/O history with abnormal results	Criteria for determining abnormal result	Estimated Prevalence - Source = Ref. #5 unless otherwise noted
Blood Pressure	2308	1399	25.7	Systolic > 139 OR Diastolic > 89	23% Hi BP 32% African Americans 21% Whites
Spirometry	1442	1163	3.3	Moderate or Severe Reduction in airflow	2% emphysema 11% asthma 4% bronchitis
Blood Cholesterol	2050	1517	12.1	> 239	11% heart disease
Blood Glucose	2049	1760	2.2	Fasting > 125; non-fasting > 225	Diabetes: 7% whites 12% AA
Urine test for hemoglobin	1264	1264	8.0	Positive for hemoglobin	
Blood Hemoglobin – Females	1160	1160	1.5	< 9.1	9-16% young females 6-9% older females ⁷
Blood Hemoglobin – Males	877	0	0	< 9.1	2-3% adult males ⁷
Blood Triglycerides (fasting adults)	586	586	15.2	> 199	11% heart disease
Clinical Breast Exams (females)	481	477	3.1	Suspicious or Abnormal finding	2% CA
PAP Smears (females)	380	380	5.5	Suspicious or Abnormal finding	1% CA
PSA Blood Test (males)	603	603	6.5	> 4.0	2% CA
Prostate Exam (males)	342	342	8.2	Abnormal finding	2% CA
Blood Lead Level (children)	47	0	0.0	> 9	3 to 4% of high risk in LM ⁴
Colon Cancer Screening	1800	unknown	unknown		Less than 1% Colon CA ⁶



A common cardiovascular disease is high blood pressure, also called hypertension. Estimates of the incidence of high blood pressure vary from 20 to 40% of the population, depending on age, gender, and race,⁸ with an overall rate for the US population of 22%.⁵

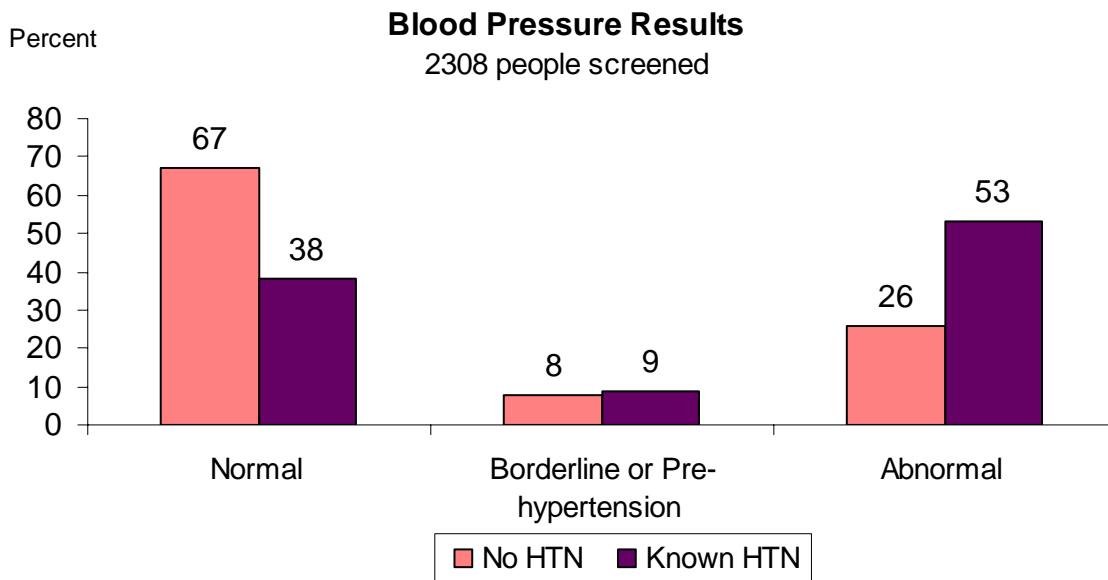
It is common in health surveys to ask if the individual has been told by a health professional that they had high blood pressure. Hypertension can lead to stroke, heart attack, heart failure or kidney failure. Thirty-nine percent of the screening participants reported having high blood pressure, compared to 26 to 30% for surveys completed in Louisville Metro, Kentucky, and the US (from BRFSS Survey Data²).



A normal blood pressure is considered to be 120/80 (120 systolic reading and 80 diastolic reading) or lower. An abnormal blood pressure is a systolic reading of 140 or more OR a diastolic reading of 90 or more. Consistent blood pressure readings in this range suggest hypertension, or high blood pressure. Anything less than this abnormal result, but greater than the normal result is considered borderline, or pre-hypertension.

Blood pressure screening was completed for 2,308 of the screening participants. Of the participants screened for blood pressure, 1,399 people reported no history of hypertension while 909 (or 39%) reported having hypertension.

In participants who did not have a history of high blood pressure or hypertension (HTN), 26% had an abnormal blood pressure reading. These individuals were advised to get follow-up for potential hypertension. Of the participants known to have hypertension, 53% had an abnormal blood pressure reading at the screening event. This indicates that the majority of the participants already diagnosed with high blood pressure did not have their disease under control.

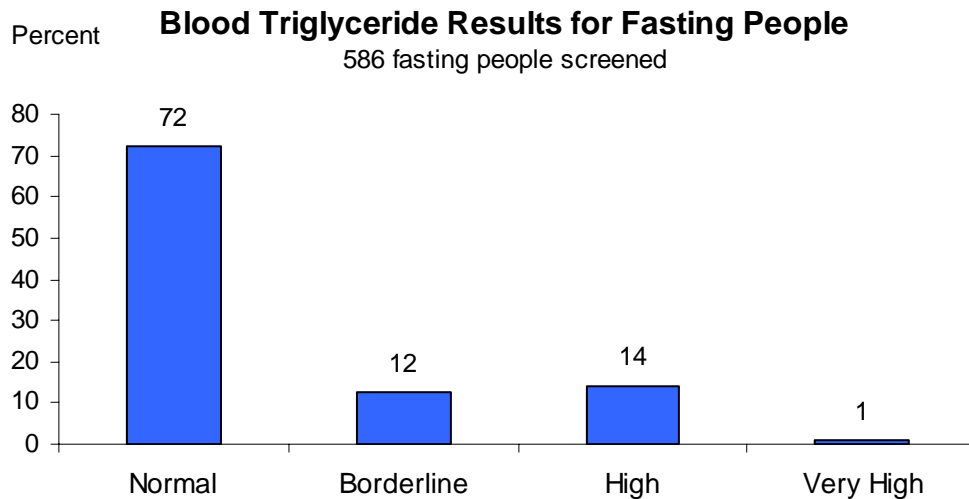


High blood cholesterol and/or triglyceride levels are another major risk factor for heart disease. Almost half of the individuals screened with no known history of elevated cholesterol measured either borderline (31%) or abnormal (12%). Of the screening participants with a history of elevated cholesterol, over half of them were borderline (30%) or abnormal (25%). This indicates that a fourth of the participants with a known history of high cholesterol still had an abnormal level. In addition, 30% of participants with a known history of high cholesterol had borderline levels of cholesterol in the blood stream.

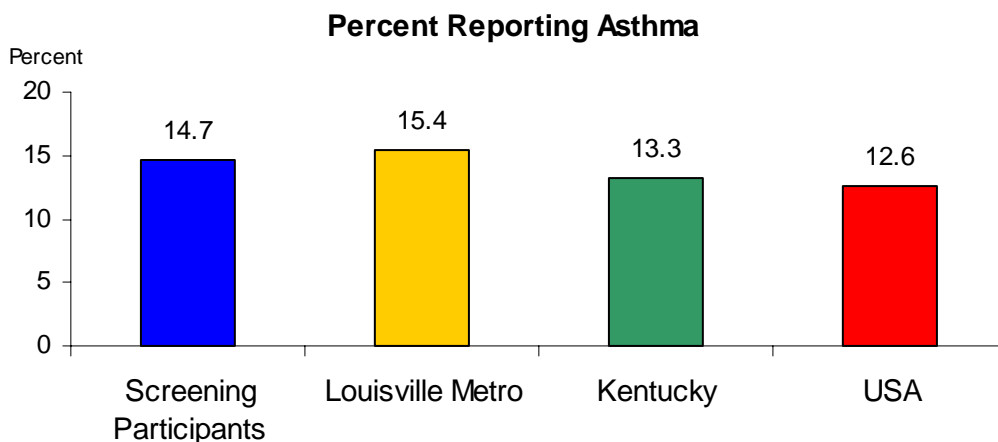




A measure of the triglyceride level in the blood stream is only useful if the person has not eaten for 12 hours. Of the people screened, 586 had not eaten within 8 to 12 hours. Of these participants, 82 (or 14%) had a high triglyceride level and seven (or 1%) had a very high level.

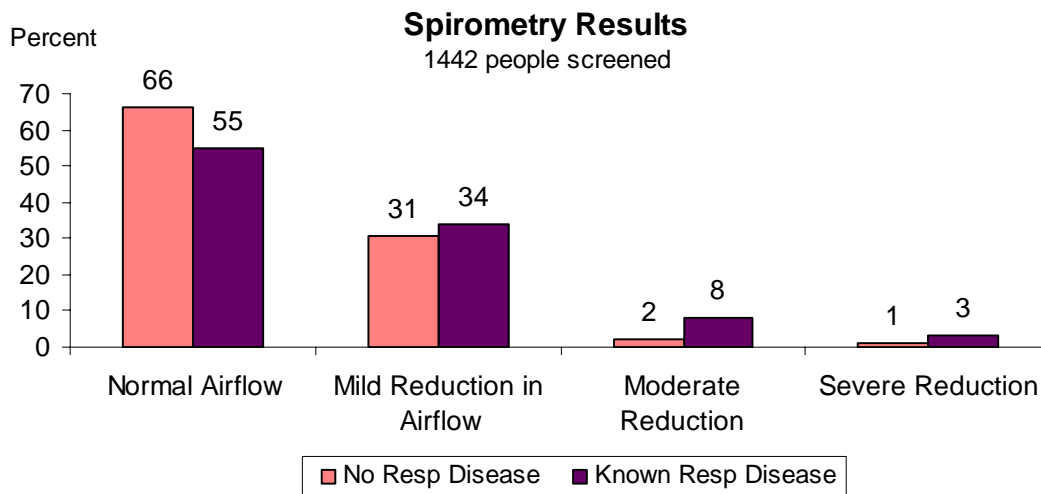


Asthma is one of the respiratory diseases that obstructs airflow in and out of the lungs and included as a commonly asked about disease on health surveys. Approximately 15% of screening participants and Louisville Metro residents reported knowing they have asthma, compared to the 13% reported in Kentucky and the US.²

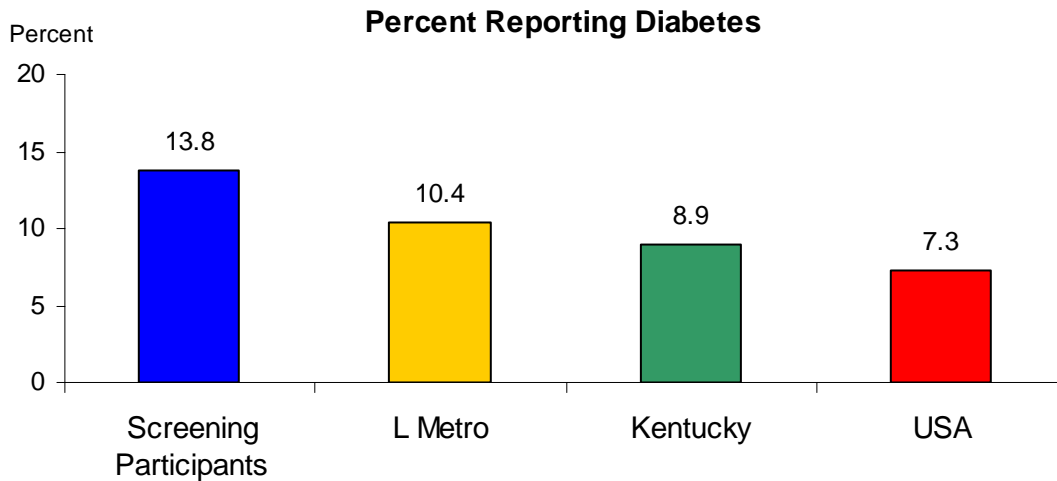




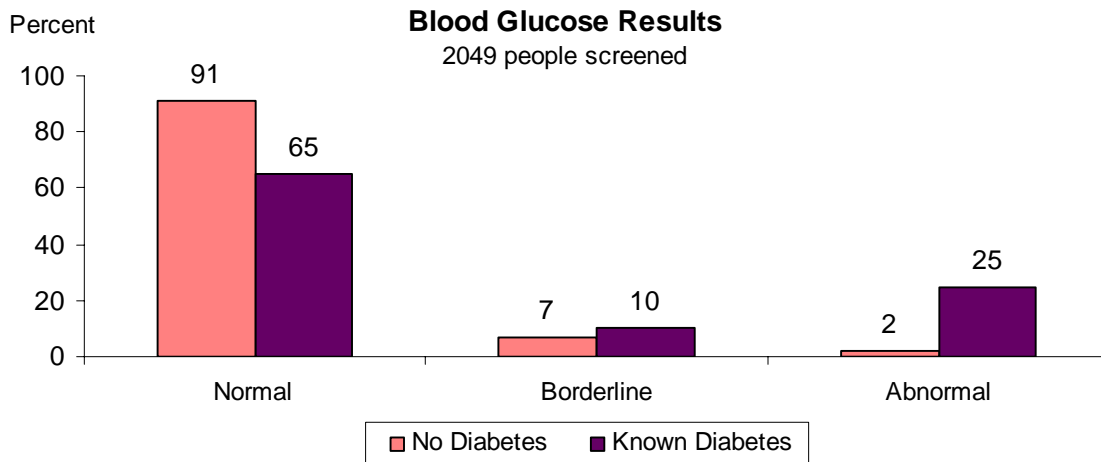
A spirometry test measures how well an individual is moving air into and out of the lungs and is useful in diagnosing respiratory diseases affecting airflow. Of the 1,163 individuals screened without a history of respiratory disease, 24 people (2%) had a moderate reduction in airflow and 14 (or 1%) exhibited a severe reduction. Of the 279 people with a history of respiratory disease, 23 people (8%) had a moderate reduction in airflow, and 9 (or 3%) had a severe reduction.



Diabetes is characterized by high levels of blood glucose resulting from defects in insulin production, insulin action, or both. Insulin is a hormone produced by the pancreas to regulate blood sugar. Behavioral factors that can contribute to diabetes include increased fat consumption, decreased physical activity, and obesity. This is another disease incidence that is frequently asked on health surveys. The highest percentage of those reporting diabetes occurred in the screening participants (14%), followed by Louisville Metro (10%), Kentucky (9%), and US (7%)².



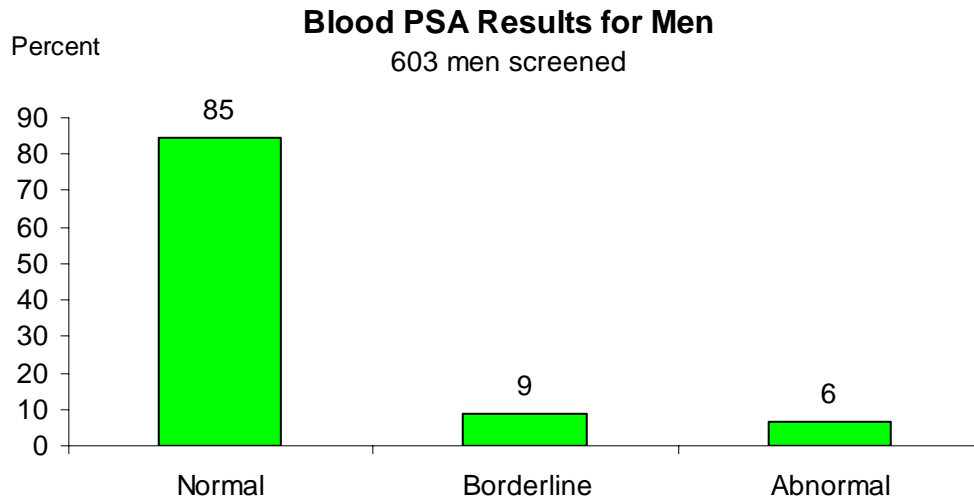
Of the participants with no known history of diabetes, 91% of the screening participants had a normal blood glucose level, while 2 % were abnormal and 7% were between normal and abnormal, or considered borderline. Of those with a known history of diabetes, 65% had normal blood glucose results, 7% borderline, and 25% abnormal. This indicates that 25% of participants with diabetes may not be well controlled.



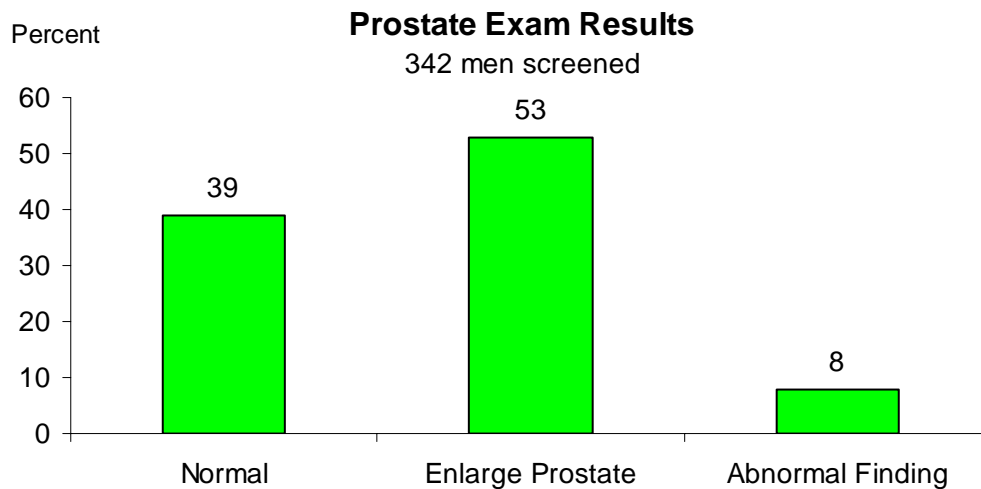
Screening tests related to several cancers were part of the screening project. Men were offered two tests for prostate cancer, a prostate specific antigen (or PSA) blood test and a rectal exam.



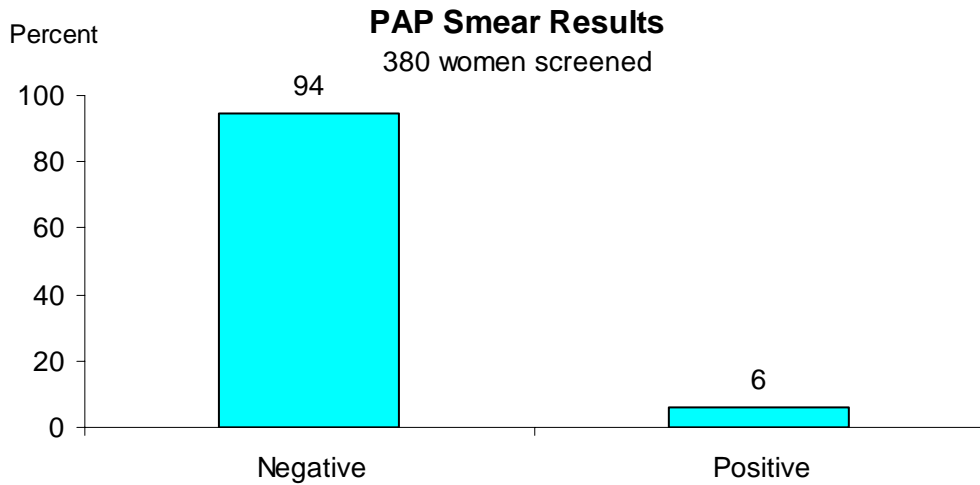
Of the 603 males who had the blood test, 39 (6%) men exhibited abnormal blood PSA results. In addition, 53 men (or 9%) were at a borderline level.



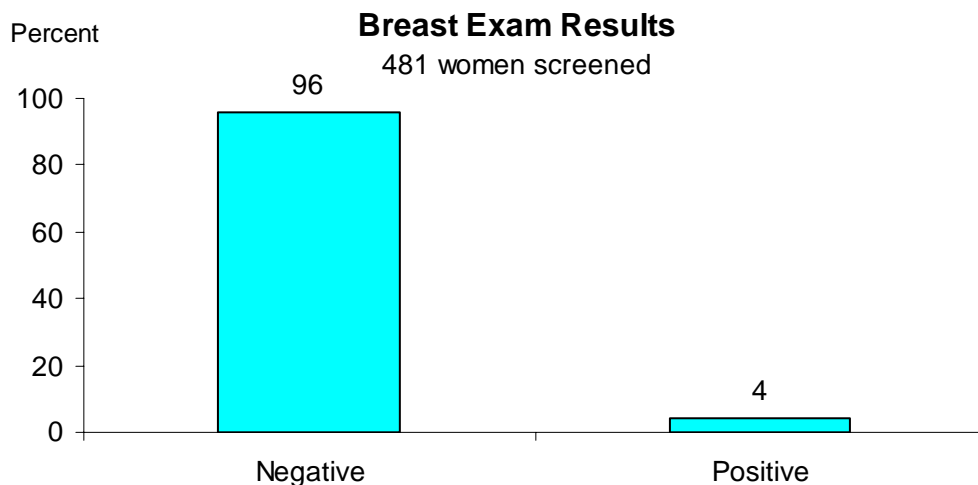
Rectal exams were completed on 342 males. Although over half (53%) of these men had an enlarged prostate, only 28 (or 8%) had an abnormal or suspicious finding.



The Pap test, also called the Pap smear, is a screening test for cervical cancer. Having regular Pap tests will increase the chance that any cervical cancer is detected during an early, treatable stage. Of 380 women screened with a Pap smear, 21 (or 6%) had a positive or potentially abnormal finding and require follow-up.



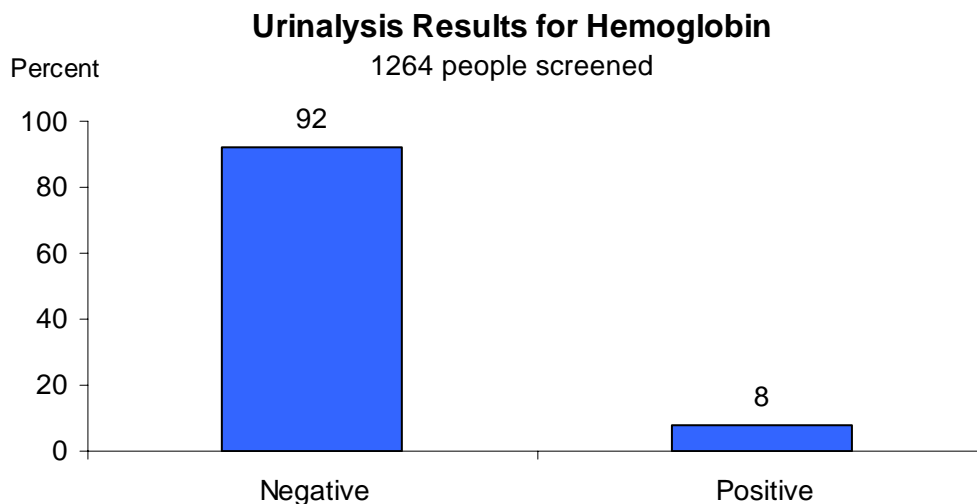
In the United States, breast cancer is one of the most common cancers in women, regardless of race or ethnicity. There are three main tests used to screen for breast cancer: mammogram, breast self-exam, and clinical breast exam. The screening sites offered women a clinical breast exam to check for any signs or symptoms of breast cancer. While 481 women had a clinical breast exam at the screening site, four of them already knew they had a problem with their breasts. Of the 477 who did not have a previously identified problem, fifteen women (or 3%) had an abnormal finding from the clinical breast exam and were referred for a mammogram.





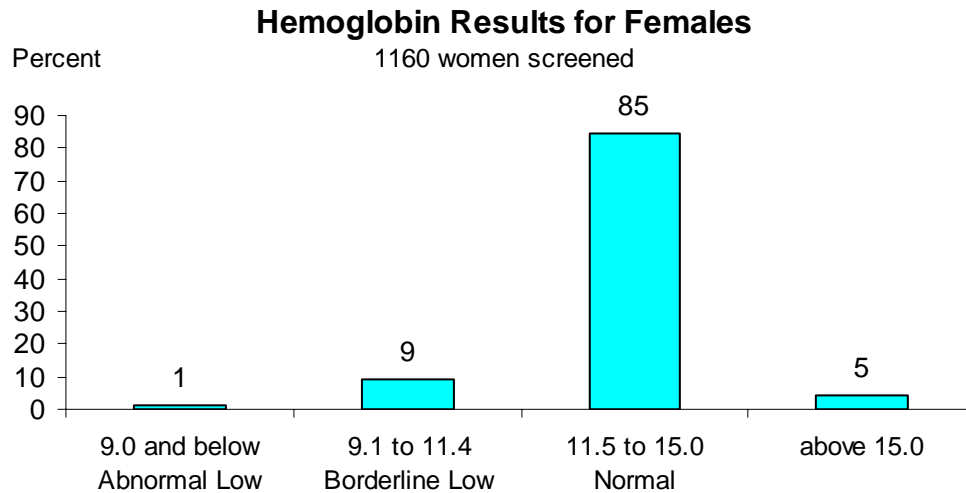
In addition, employees from the Louisville Metro Public Health and Wellness determined that 297 women were due for a preventive mammogram based on their age or medical history. They assisted these women in obtaining a preventive mammogram.

Testing the urine for the presence of blood (hemoglobin) is a preliminary screening test to see if bladder cancer is a possibility. A urinalysis for hemoglobin was conducted on 1,264 people. There were 101 individuals (or 8%) with a positive result for hemoglobin. Those with a positive result were offered a urine cytology test for the presence of suspicious cells for bladder cancer.

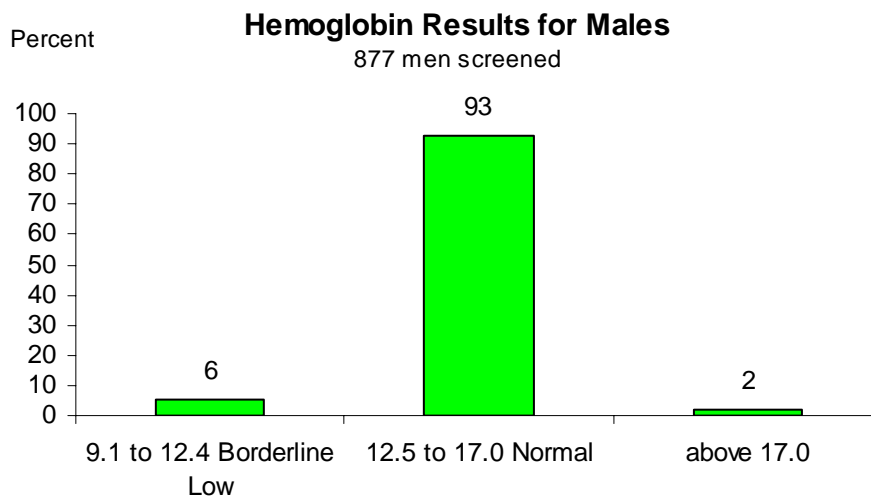


The hemoglobin level in the blood stream was another screening test offered at the screening sites. Above-normal hemoglobin levels may be the result of dehydration, excess production of red blood cells in the bone marrow, severe lung disease, or several other conditions. Below-normal hemoglobin levels may be related to anemia that can be the result of iron deficiency, inherited hemoglobin defects such as sickle cell anemia, cirrhosis of the liver, kidney disease, or other chronic illnesses. Women and men have a slightly different normal level of hemoglobin in the blood.

Of the 1,160 women screened for blood hemoglobin level, the majority (85%) had normal hemoglobin results. Nine percent had borderline results and 1% (or 17 women) had abnormally low results. In addition 5% were higher than normal.



Among the 877 men screened, 52 exhibited borderline low results. No men were found to have abnormally low levels. Two percent were abnormally high.

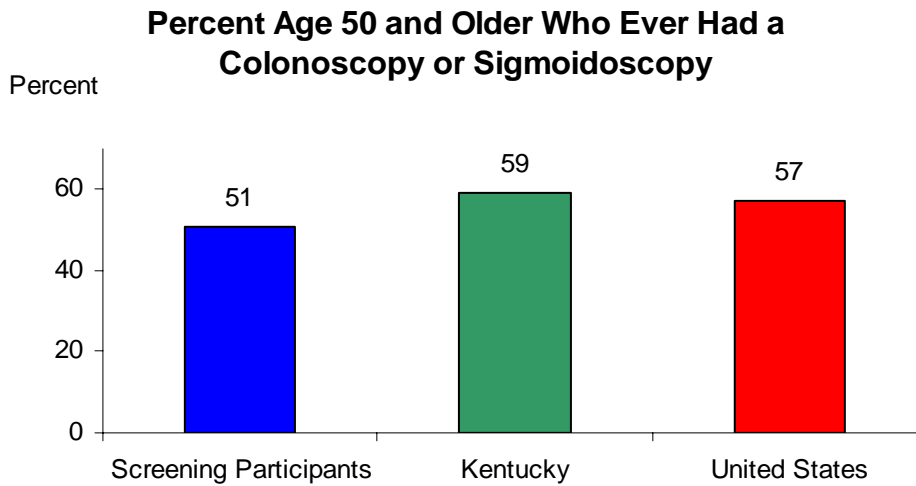


Each site had a colon cancer screening and education station where staff members asked screening questions for colon cancer and provided colon cancer education. Eighteen hundred (1,800) participants stopped at this station. Of these participants, 46% were at high risk for colon cancer and 73% said they were willing to have a colonoscopy test performed.

There were 1,302 participants who were 50 years of age or older and participated in the colon cancer screening. Of those participants, 772 (or 59%) said they were willing to have a colonoscopy test.



All screening participants were asked if they had ever had a colonoscopy or sigmoidoscopy, which are the preferred colon cancer screening tests for adults who are 50 years of age or older. Of the screening participants who were age 50 years or older, 51% reported that they previously had one of these tests. This is lower than the percent reported in the 2006 Behavioral Risk Factor Surveillance System survey for the commonwealth of Kentucky (59%) and the United States (57%).



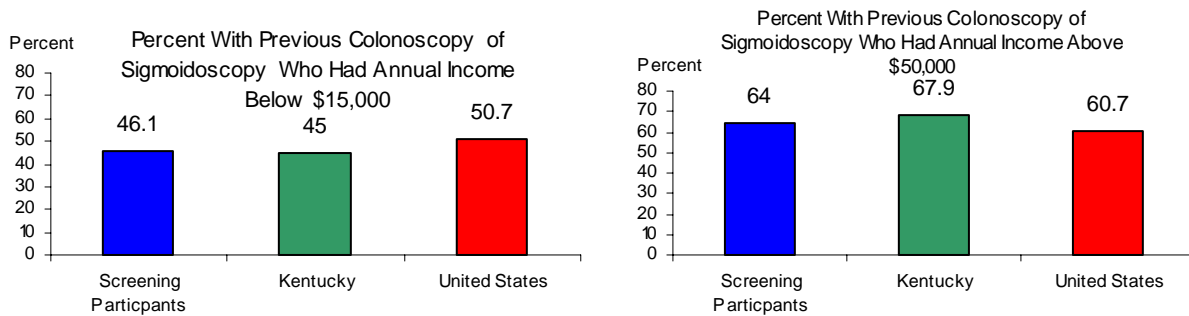
The Louisville Metro Department of Public Health and Wellness is partnering with several community entities to guide some of the screening participants who are 50 years or older and have not had one of the screening tests through the process of obtaining a colonoscopy. The plan is to navigate up to 430 of these participants. If 58% of these participants actually obtain a colonoscopy under this program, this would increase the percent of screening participants (50 and older) who have had a screening test for colon cancer from 51% to 70%. This would make the percent one of the highest ever reported for a specific population.

Additional analysis of those 50 years of age and older who have had a sigmoidoscopy or colonoscopy, shows a relationship between both income and education and the percent who have had one of these tests performed.

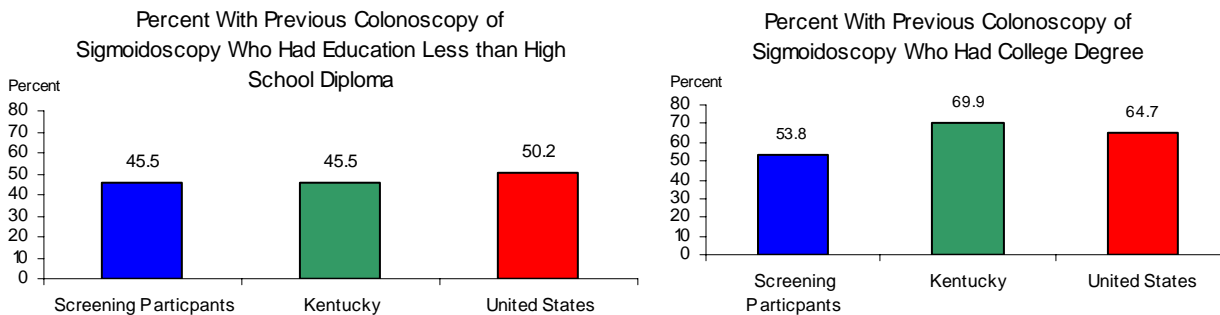
For people ages 50 and older in the United States, about 51% with an annual income under \$15,000 have had one of the screening tests. However, this percent goes up to 61% for those with an annual income over \$50,000.



Comparing the US population to our screening participants (50 years of age and older), 46% of participants with an annual income under \$15,000 had one of the tests, which is lower than the US rate. However, 64% of the screening participants 50 years of age or older with an annual income over \$50,000 have had one of the tests, which is higher than the rate for the US.



When examining education, 46% of the screening participants compared to 51% of the US adults 50 and older who had less education than a high school diploma had a screening test. A higher difference was found for those ages 50 or older who had a college degree and one of the screening tests. That percent was 54% for the screening participants and 65% for adults in the United States.



At the screening sites, children under age six were offered a blood lead test to see if the level of lead in their blood stream was elevated. Forty-seven children had the lead test done and none of them had an elevated lead level.



4.11 Participant Follow-up

Screening staff told participants their blood pressure reading, spirometry results, clinical breast exam results, and rectal exam results at the time of the screening. Participants received a letter with their laboratory test results. Information on cholesterol levels, and how to reduce those levels, was included in the letters sent to the participants. Any abnormal PAP smear results were followed up by the LMPHW Cancer Prevention Program staff using their protocols.

In addition, LMPHW staff members are contacting, by phone, all the people who met one or more of the following criteria:

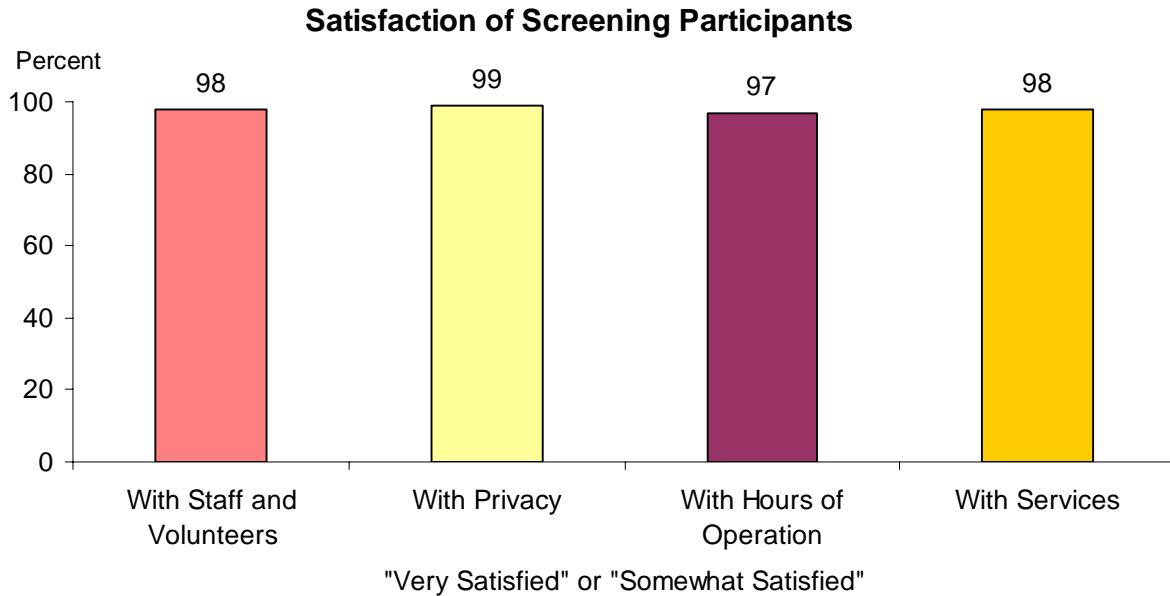
- A documented referral for the blood pressure reading
- A documented referral for spirometry results
- A blood sugar (glucose) level of greater than 125 for fasting participants or greater than 225 for non-fasting participants
- A blood hemoglobin level of less than 9.1
- A blood PSA level of greater than 2.5
- An abnormal result from a digital rectal exam
- An abnormal result from the breast exam

The LMPHW staff will ask these participants about their follow-up for the indicated health issues:

- Have they have seen a health professional?
- Did a health professional prescribe any new medications?
- Did they get any new prescriptions filled?
- Did the health professional make a new diagnosis?

4.12 Participant Satisfaction with the Screening Event

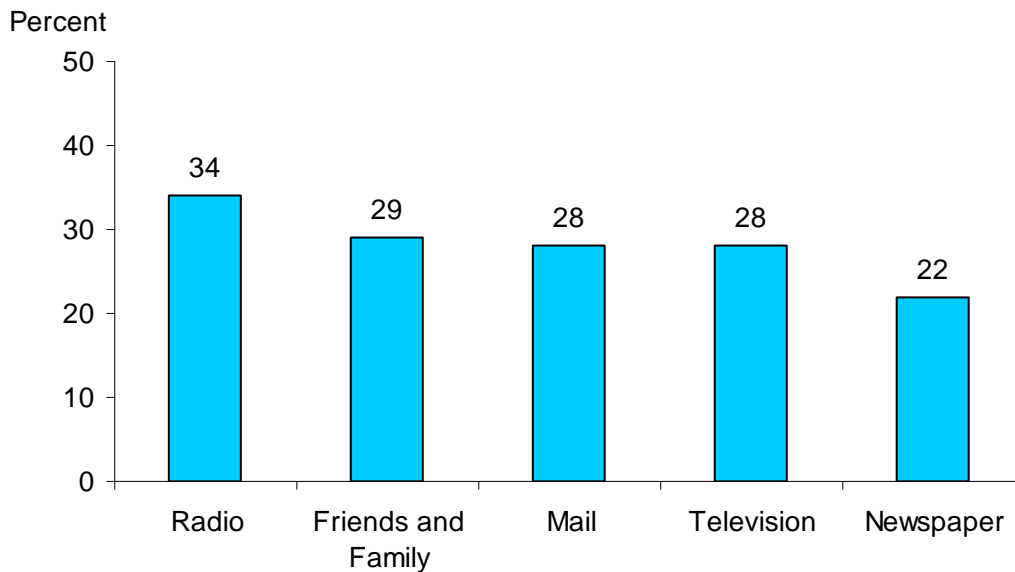
At the screening site, participants had the opportunity to complete a satisfaction survey when they had completed the screening activities. Of the 2,407 participants in the screening project, 1,913 (79%) completed a survey. The survey included four questions about the participants' satisfaction with their experience at the screening event. (The survey instrument is in Appendix A.) The vast majority of the participants (97 to 99%) were satisfied (either 'very satisfied' or 'somewhat satisfied') with the treatment by the staff and volunteers, the privacy provided at the event, the hours of operation and the screening services.



In order to maximize community awareness of this screening event, outreach activities used several media outlets. To gauge the effectiveness of each of these media, the survey asked participants, "How did you learn about the screening clinic?" Multiple responses were possible (see Appendix A) and 37% indicated they were exposed to the message from multiple media. Radio messages appear to have been most successful at reaching community members who made the decision to attend the event with 34% of survey respondents indicating radio messages.

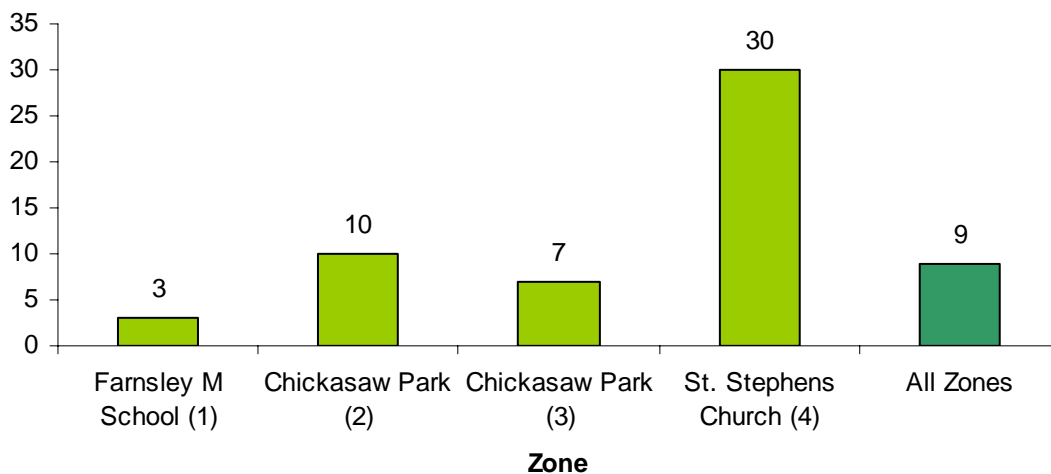


"How did you learn about the screening clinic?"



While only 9% of survey respondents received messages about the event from their church, 30% of the respondents who were screened at St. Stephens Church indicated they learned about the event from their church. Using the church facilities as a screening site increased the church's involvement in promoting the screening event.

Percent Who Received Information About Screenings from a Church





Fifty respondents checked none of the boxes provided to indicate how they learned of the event. However, 29 of these 50 respondents wrote in a response to indicate other ways they learned about the event. These responses included:

- I walked/drove by the site. (18)
- I received a phone call. (10)
- I saw a flyer. (4)
- I learned about the screenings from a website. (4)
- I learned about the screenings at work / union hall. (3).
- I learned about the screenings at a health center. (1)
- I learned about the screenings at the grocery store. (1)

Eighty-eight survey respondents wrote in remarks about their experience at the screening event. These comments were categorized, and the following categories had at least four responses:

- Expressions of gratitude or specific compliments for the services (26)
- Frustration with the time respondents were required to wait (17)
- At times particular services were unavailable and required a return on a different day (13)
- Hours of the screening were inconvenient (7)
- Patients were seen out of order, including patients without an appointment (7)



5.0 Observations

Funds for the \$1.2 million Community Health Screenings Project occurred in response to an agreement between the United States Environmental Protection Agency (EPA) and the Louisville Metropolitan Sewer District (MSD) as a result of negotiations between MSD and the Kentucky Department of Environmental Protection over alleged violations. This agreement allowed LMPHW to assess the health status of the people who live in designated areas surrounding Rubbertown.

The LMPHW Planning Committee structured the health screenings by dividing the project into integral plans that included financial, logistics, communication, staffing, and enrollment. In theory, funds were available to screen 30,000 residents; however, it was difficult to project the actual number of participants. In planning the screening event which began September 10, 2007, and concluded November 9, 2007, the committee discussed the importance of connecting participants to a medical home. LMPHW contracted with the Family Health Centers, Inc., the University Physician Associates, and Park DuValle Health Center to provide follow-up healthcare for participants who did not have a medical home. Health department staff notified each participant of his/her screening results and provided appropriate referral sources.

Over several weeks following the screenings, The Office of Policy and Planning and Evaluation analyzed the screening data that resulted in the following observations:

- Two thousand-four hundred and seven (2,407) people participated in the event
- Participants tended to be older than the target population, with those 40 years of age and older significantly more likely to attend
- Women and Whites attended at a slightly higher rate than their representation in the target area population
- Participants in the screening project tended to have a higher educational attainment and a lower income than the target area population
- Participants were more likely to be without health care coverage and to report their health status as “fair” or “poor” than comparison populations
- Participants had a higher rate of not seeing a physician due to cost and not visiting a dentist during the previous year than comparison populations



- Participants had a higher rate who were overweight or obese, a lower rate who ate adequate servings of fruits and vegetables, and a lower rate engaging in leisure time physical activity than comparison populations
- Participant's were categorized based on the location of their residence:
 1. The *Target Area* as defined by the court decree (1206 participants)
 2. The *Surrounding Area* around the target area (997 participants)
 3. In Louisville Metro, but the area outside the target area and the surrounding area (*LM Outside Area*) (151 participants)
 - ❖ Living outside all three of these areas were 37 participants
 - ❖ An additional 16 participants reported living in Louisville Metro but did not provide an address that could not be located in one of these areas

Significant differences between the three areas were:

- Outside the target area, African Americans participated at a much higher rate than their representation in the population
 - People age 65 years and older were significantly more likely to attend the screening if they lived in the target area and least likely to attend if they lived in the LM Outside Area
 - Lower income people were more likely to attend the screening event than their proportion in the population
 - The greater distance the participant traveled, the less likely he or she had any health coverage, had a primary care physician, or visited a physician during the past year. The greater distance the participant traveled, the more likely he or she needed to see a physician during the past year, but did not due to the cost
- 50% of the participants reported having one or more *cardiovascular diseases*
 - 38.7% of participants reported having high blood pressure (expected prevalence in a population is 23.5%)
 - 25.7% of participants not reporting high blood pressure had an abnormally high BP reading
 - 19% reported one or more *respiratory diseases*
 - 14.7% reported asthma (expected prevalence 11%) 3.3% of those not reporting any respiratory diseases had an abnormal spirometry result
 - 14% reported *diabetes* (expected prevalence 7.9%)
 - 2.2% of those not reporting diabetes had an abnormally high blood glucose level
 - 7% reported *cancers*



6.0 Next Steps

Discussions have taken place to define the next steps in the community health screenings project to expend the balance of the funds. Components have emerged of which two are in process.

1. **Follow-up** (in process). Health department nurses are calling participants and employing a standardized screening form to collect information. Their conversation ascertains if participants followed medical staff recommendations made as a result of the screenings outcomes. Collected information includes 1) whether participants followed up; 2) whether a new diagnosis was made; 3) whether treatment regimens are changed or a new regiment began. Medical recommendations are reinforced, and the information collected is entered into a database to evaluate the efficacy of the screenings project.

2. **Focus Groups**. This is a recommendation to convene focus groups comprised of persons who were eligible for the community health screenings but elected not to attend. The focus groups will provide valuable insight into community members' perceptions of their health, the health department, and the health care system.

3. **Colon Cancer Screening Collaborative** (in process). Of the health screenings, 1,302 colon cancer screenings were completed, and participants were identified as normal risk, at-risk, or high-risk for colon cancer. LMPHW and the Colon Cancer Prevention Project formed a partnership to provide colonoscopy screenings for insured and uninsured participants who were screened to be at-risk and high-risk for colon cancer. The partnership includes 41 gastroenterologists and surgeons, all four major healthcare facilities in Louisville Metro, four pathologists, the American Cancer Society, the American Red Cross, and Salix Pharmaceutical. The physicians and health care facilities agreed to waive any costs associated with their services for participants who are uninsured. LMPHW established a navigator position to link high-risk participants to the healthcare facilities and their navigation system.

4. **Asthma Case Management**. Asthma was among the most common chronic illnesses reported by patients seen at the screening event. 290 patients were referred for follow-up with a health-care provider due to abnormal spirometry exams which indicated lung pathology. We propose to use health screening funds to educate residents about asthma at the community and individual level. We will provide asthma educational events at sites such as area schools and workplaces. We will also provide case management to individual adults and children in the Rubbertown area with asthma. The outcomes of this health screening component will be monitored and evaluated.



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Appendix A

Community Health Screenings Project Map



Appendix B Community Partners



Appendix C

Client Satisfaction Survey



Appendix D Post Screenings Letters