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THE MULTIPLE LOCATION TIME WEIGHTED INDEX: USING PATIENT ACTIVITY SPACES TO CALCULATE PRIMARY CARE SERVICE AREAS

Jennifer Lynn Rankin
The University of Texas School of Health Information Sciences at Houston

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by

JENNIFER LYNN RANKIN, B.A., M.H.A., M.S.

DISSERTATION

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Dissertation

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August 11, 2008

APPROVED:

_____
Kim Dunn, M.D., Ph.D.
UT School of Health Information Sciences

_____
Charles E. Begley, Ph.D.
UT School of Public Health

_____
Hongbin Wang, Ph.D.
UT School of Health Information Sciences

_____
Keith D. Burau, Ph.D.
UT School of Public Health

_____
Charlotte C. Cunliffe, M.B.A., M.P.H, Ph.D.
Tulane University School of Public Health
and Tropical Medicine

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CHARLES E. BEGLEY, PH.D.

KEITH D. BURAU, PH.D.

HONGBIN WANG, PH.D.

DEDICATION

This work is dedicated to all of my extended family, past and present-- from my ancestors who loved learning and began the tradition of seeking higher education to my current family and friends who supported and encouraged me through this process. I am grateful and inspired by each of them.

PREFACE

This work was made possible through funding from the King Family Scholarship and St. Luke's Episcopal Health Charities.

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Jennifer L. Rankin, B.A., M.H.A., M.S., M.P.H., PhD.

The University of Texas

School of Health Information Sciences

School of Public Health

Houston, Texas

2008

Thesis Advisor: Kim Dunn

Geographic health planning analyses, such as service area calculations, are hampered by a lack of patient-specific geographic data. Using the limited patient address information in patient management systems, planners analyze patient origin based on home address. But activity space research done sparingly in public health and extensively in non-health related arenas uses multiple addresses per person when analyzing accessibility. Also, health care access research has shown that there are many non-geographic factors that influence choice of provider. Most planning methods, however, overlook non-geographic factors influencing choice of provider, and the limited data mean the analyses can only be related to home address. This research attempted to determine to what extent geography plays a part in

patient choice of provider and to determine if activity space data can be used to calculate service areas for primary care providers.

During Spring 2008, a convenience sample of 384 patients of a locally-funded Community Health Center in Houston, Texas, completed a survey that asked about what factors are important when he or she selects a health care provider. A subset of this group (336) also completed an activity space log that captured location and time data on the places where the patient regularly goes.

Survey results indicate that for this patient population, geography plays a role in their choice of health care provider, but it is not the most important reason for choosing a provider. Other factors for choosing a health care provider such as the provider offering "free or low cost visits", meeting "all of the patient's health care needs", and seeing "the patient quickly" were all ranked higher than geographic reasons.

Analysis of the patient activity locations shows that activity spaces can be used to create service areas for a single primary care provider. Weighted activity-space-based service areas have the potential to include more patients in the service area since more than one location per patient is used. Further analysis of the logs shows that a reduced set of locations by time and type could be used for this methodology, facilitating ongoing data collection for activity-space-based planning efforts.

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BACKGROUND AND SIGNIFICANCE

Community Health Planning

Geographic health planning analyses, such as access to care studies and service area calculations, are hampered by a lack of patient-specific geographic data. Health planners frequently employ maps to represent the existing health care infrastructure on top of layers representing health need [1-6]. These maps are analytic tools used to visualize current gaps between health care capacity and health care need. The value of an analytical tool, however, is dependent on the quality and quantity of the underlying data. Due to a lack of data and the poor quality of the data available, these maps are often limited to representing health care providers as single points, which do not effectively show the region whose needs the health care provider serves. A better representation of this region, called a service area, can be constructed in many different ways.

Estimated service areas use population based measures to determine health care need. The Index of Medical Underservice (IMU) [7] is used to estimate areas needing primary care services. Users of this index combine four gross census-based measures of need to determine a particular area's score. These measures are percentage of the area's population living in poverty, percentage of the area's population aged 65 and older, the infant morality rate, and the ratio of physicians to population. Federal programs use the resulting Medically Underserved Areas (MUAs) to describe primary care service areas that are eligible for federal funding [8, 9]. MUAs are constructed using the Index of Medical Underservice and are designated when the area's score on the IMU is above a certain level. Because all of the

data used are census-based, this primary care service area is an estimation of where the medically underserved and, therefore, potential patients eligible for federal funding, live.

Another way to construct the service area for a particular provider is to analyze the address information of patients who actually use the services of the health care provider. These patient origin studies use available patient address information, usually contained in clinical information systems. One example of a patient origin methodology is the Griffith Commitment Index (GCI) [10]. This index analyzes patients' home addresses by aggregating them into ZIP Codes or census tracts and then ranking these areas based on percentage of the total patients from that provider who live in that area. The service areas are then pieced together starting with the highest ranking one and adding more until some threshold of patients has been reached. The ideal representation of the GCI is a completely contiguous service area, but regardless of contiguity, this service area is based on actual usage of the health provider. This methodology is not limited to primary care, but to date has been limited to analyzing patient home address only.

Planning for Community Health Centers

Much work has been done to understand how people access health care providers and what barriers may impede their access. Work by Donabedian [11], Aday and Andersen [12], and others has shown that many factors influence whether a patient can and will access a health care provider. This population-based research has shown that people often say they choose providers based on factors other than location, such as language spoken by the

provider, gender of the provider, hours the office is open, and whether the provider takes their insurance or sees people if they are uninsured.

Nowhere in health planning are factors for access to care taken more seriously than in the Federal Consolidated Health Center program [13]. This program provides funding to Community Health Centers that see anyone who walks in the door seeking primary care, regardless of their ability to pay. In addition to the requirement that the health centers see the medically underserved, including the uninsured, they must provide enabling services like translation and transportation, as well as comprehensive services including primary medical, dental and mental health care. All of these are non-geographic factors that can lead to a patient choosing the health center.

Health centers, however, must be located in and/or serve a Medically Underserved Area (MUA) or serve a Medically Underserved Population (MUP) [14]. It is assumed that for health centers that serve an MUA, the majority of their patient population will live in the MUA because of this population's assumed lack of transportation options. Research on shortage and underservice designations has shown the MUA methodology to be inefficient in getting federal funding to the underserved in part because there is no assurance that the funding is going to areas most in need, but also because they rely on out-of-date information [8, 9]. Additionally, the Government Accounting Office (GAO) elucidated the fact that the MUAs have never been systematically reviewed and updated, and, where appropriate, had their designation removed. The 2006 GAO report stated that if MUAs were to be reviewed today over half of them would be withdrawn [9]. Furthermore, a study in Missouri showed

that the actual service area for a community health center was distinctly different than the MUA [15].

Similarly, the Harris County Hospital District (HCHD) provides Community Health Centers for residents of Harris County, Texas. HCHD has 11 Community Health Centers, a specialty HIV/AIDS center, in addition to a dental center, nine school-based health centers, a Healthcare for the Homeless Program, and two hospitals. Additionally, two new Community Health Centers are in development. In 2006, the Community Health Centers provided 631,229 doctor visits. This public system provides the largest share of health care to the uninsured in Harris County [16].

HCHD Policy 2500 stated that patients would be assigned to a Primary Treatment Location. This policy was an effort to spread uninsured patients equally to all Community Health Center locations. Assignment to a health center was based on patient home ZIP Code. See Figure 1 for a map of these health center service areas. Only the uninsured patients were subjected to this policy which was enforced during eligibility determination. If patients were deemed eligible to receive the HCHD Gold Card they were also assigned to a home clinic, although they were given the right to appeal to change this assignment. At the February 27, 2003 Board of Managers Meeting, Policy 2500 was rescinded to eliminate the disparity in access between uninsured and insured patients. Acknowledging the many factors that could lead a person to choose a specific provider, the Board of Managers stated that until the policy was rescinded only insured patients “may select to seek primary health care at the Community Health Center nearest to the home, church, work, or school or they may select

the center at which a favored physician is located, specific language is common, or the wait for an appointment is shorter." [17]

Despite rescinding Policy 2500, the HCHD continues to think of the service areas of each of the health centers as those ZIP Codes that were assigned to it when the policy was rescinded. Patients are still told to which health center they are "zipped" when receiving their Gold Card, and in the 2005 Harris County Community Assessment the patient statistics for each location are reported based on these service areas [18].

Limitations of Patient Origin Studies

Many assumptions pervade patient origin studies. The main assumption is that people choose health care providers because they are closest and, furthermore, that closest means the closest provider to home. This assumption is based on the theory of distance decay- people should be willing to travel farther for specialty care than for primary care, because specialists tend to congregate in medical centers and/or close to hospitals and, therefore, on average are farther from patients [19]. Primary care physicians tend to be more dispersed in a community, so people in theory should be able to find a primary care provider close to home and therefore should not be willing to travel a longer distance to find primary care.

In addition to the failure to incorporate patient insurance limitations and referral patterns into patient origin studies, most public health geographical research has been done using patient addresses as collected by health care providers for administrative purposes. When these data are used in public health research, they are assumed to be patients' home

addresses. Therefore, the analyses reference how far a patient travels from "home" to reach the health care provider, even if it is not clearly stated that "home" is the reference point. Patients may in fact travel from other locations to get to the provider and therefore may choose a provider because they are close to one or more other types of locations [20]. Patients may also act "irrationally" traveling farther to a health care provider than absolutely necessary because of some non-geographic factor.

There have been advancements in general geography research including examining how people move through space and how that movement affects their accessibility to employment options, or how mobility has changed in urban environments [21-23]. This research includes studying multi-modal trips and activity spaces. Multi-modal trips are those that start by going to one location, then to a second location, then to a third location and so on until the person returns to the original departure location. Prior to this, accessibility research always measured accessibility by measuring distance from home. In this old methodology, the original departure point is always home, and the person will always return home prior to going to the next location on the list. Patient origin studies hold on to the old assumptions and consequently the methods underlying the geography of access to health care and patient mobility have not advanced.

Activity Space Research

Activity space research done since the late 1970's shows that activity spaces can be used for health planning and understanding health care accessibility. Most public health activity spaces represent people via two-dimensional ellipses that incorporate all or many of

the places where they spend their time. The public health research done by Shannon and Spurlock [20], Cromley and Shannon [24], and Gesler and Meade [25] all used standard deviational ellipses (SDEs) [26] as the two-dimensional "activity space" that represents a person in their many usual activity locations including home, work, and others. Sherman has more recently posited other methods for using activity space data to understand access to health care providers [27]. See Figure 2 for an example of activity space data.

To date, health-related activity space studies have started with a defined geographic population to determine if essential services or the existing health infrastructure are optimally dispersed. The research has shown that people living close together actually move through very different personal neighborhoods. The researchers concluded that overlapping areas of the resulting activity spaces represented ideal locations for the placement of essential social services such as health care providers [24]. In other studies, the researchers concluded that providers visited as reported by the survey respondents, although distant from home, did fall into their activity spaces [20, 25]. None of the research looked at a common location to see if it fell into the activity spaces of people who visited that location.

Geographic Limitations of Patient Address Data Contained in Clinical Information Systems

It is important to note that addresses used in patient origin studies are collected for entirely different purposes, namely provider/ patient communication and billing. The limited scope of addresses in clinical information systems means that the address data are limited to a single address listed by the patient, which may be one of any number of different addresses.

Patients may list their residence, billing address, post office box, or even a guarantor/payor address for confidentiality or payment concerns.

Additional patient addresses, such as work or school addresses, are unlikely to be collected in patient registration and billing systems. Employer names and addresses may be collected but that address information is likely to be associated with the human resources personnel in charge of health insurance for the employer-- an address which may or may not be the same physical location where the patient spends his or her time at work. For children, additional address information that may be collected likely also is limited to what is needed for billing rather than school addresses where the child spends his or her time during the day. The geography information found in clinical information systems allows medical geographers to represent people only at one location, and further, at locations assumed but not known to be home. People move through space every day to go to work, school, and to shop as well as for spiritual activities, health care visits, and recreation, and therefore are not stationary [28]. Most public health mapping projects, including patient origin studies fail to take into account the multiple locations where people actually spend their time simply because the data are not available.

PRELIMINARY STUDIES

Harris County MUAs vs. Health Center Service Areas

In 2005, a study using the Griffith Commitment Index illustrated the problem with MUA designations in Houston, Texas [29]. This preliminary study shows that the patients

who sought services at a primary care health center in Harris County, Texas, came from a much larger geographic area, based on patient home address, than the MUA. Although this health center was not federally funded at the time, it was seeking funding based on its location within an MUA. During 2005, we analyzed three months of patient visits to see how patient home address compared to the MUA, the oldest one in Harris County, designated in the 1980s and reviewed in 1994. In this research, patient addresses were geocoded to the census tract level and compared to the MUA which had been converted to 2000 census tract numbers. More than 88 percent (88.7 %) of these patients came from census tracts that were not part of the MUA. See Figure 3 for a map illustrating the health center's service area.

This mismatch of federally designated service area and actual service area is of particular concern to health planners in the county who are trying to determine how best to provide care to the underserved population of the region. Before planners can decide where a new publicly-funded health center should be located, they have to analyze the current health care infrastructure, including service areas, to minimize competition. Because MUAs do not represent the true service area of the health center, they are not a good approximation of a non-competing area. Furthermore, unless health center administrators engage in geographic-based planning activities, it is likely that they will not be able to articulate what their "rational" service area is.

Project Safety Net

During the Fall of 2006, focus groups were held with two community groups to get their feedback on Project Safety Net [30] to improve the system [31]. Project Safety Net is

an online, bilingual portal with interactive mapping capabilities available in Harris County that gives the medically underserved population in the region the opportunity to search for an appropriate health care provider based on user-selected criteria. This qualitative research yielded unexpected results. St. Luke's Episcopal Health Charities designed the system with the assumption that geography was the most important search factor. For a majority of our focus group participants, however, the most important factor was whether a clinic would see them at no cost, not the location of the clinic. Geography became a secondary search option to limit the participants' original search, and their suggested changes to the system were to provide an opportunity to get directions to the clinic that met their primary search criteria from any location, not necessarily home [31].

RESEARCH DESIGN AND METHODS

Project Summary

The first objective of this research was to determine if an activity space approach could be used for creating primary care service areas. Current community health planning projects rely on population based data compared to health provider location or to patient origin service areas, where patient origin is based only on patient home address. The researcher hypothesized that an activity space-based primary care service area methodology could be used to describe a more complete service area than traditional patient origin methodologies. See Figures 4 - 6 for maps of subjects' home locations, activity locations and weighted activity locations. The first aim of this project was to design a methodology using

current health planning techniques with activity space data. Additionally, a sub-aim was to compare the resulting service area with one created using traditional methodologies and residence only data. The second aim of this project was to determine if a minimum data set of activity space locations could be described to reduce the data burden of the methodology developed in the first aim.

The second objective of the study was to analyze the validity of the base assumption of patient origin studies, that patients choose the providers based on proximity to home. The researcher hypothesized that proximity to home is not the most important factor when choosing a health care provider. To that end, the third aim of the study was to assess the reasons patients seek health care at a safety-net primary care provider and to what extent geography plays a role in making that decision.

Description of Field Site for Data Collection

Data collection took place at Settegast Health Center, a Harris County Hospital District (HCHD) Community Health Center. In 2004, patients at this location were primarily African American (53.2%), but the percentage of Hispanic patients (37.1%) was rising, up from 28.2 percent in 2001. Gender breakdowns were mostly consistent over that time period with approximately 61.0 percent of patients being female and 39.0 percent male. The vast majority of patients were adult, with 91.0 percent of the visits being made by adults [18].

The ZIP Codes that HCHD has assigned to Settegast are 77013, 77015, 77016, 77026, 77028, 77044, 77049, and 77078. Slightly more than one third of Settegast's patients

came from ZIP Codes outside of this assumed service area, even before the Primary Treatment Location Policy was rescinded [18].

Study Design

Two data collection instruments were used to collect the data necessary for this study, the Health Care Choice Survey and the Activity Space Log. A copy of the survey can be found in Appendix A and a copy of the log can be found in Appendix B.

This cross-sectional research study used data collected from a convenience sample of health center clients seeking services at Settegast Health Center during Spring 2008. The descriptive study relied on the information provided by respondents in a log that collected activity space information including home, work, school and other pertinent address information as well as time spent at each location (Aims 1 and 2). A survey asked what factors are most important to them when choosing a health care provider (Aim 3).

Sample Design

The study universe included all clients who visited the health center during Spring 2008. Because the health care decision maker chose the health care provider, all clients were represented in the sample, including minors, but the information collected on minors and dependent adult patients was provided by the health care decision maker who served as a proxy for questions regarding the patient. A convenience sample of health center clients was asked to complete the survey and log during their time at Settegast for that visit. Patient

origin studies typically use all visits to the health center during a specified time period. This study was no different except for the fact that the patient could self-select out of the study.

Sample sizes for previous activity space studies have varied and have not followed standard sample size calculations because traditional probability-based statistics are not used when constructing, comparing or analyzing the service areas constructed from the data. Therefore, the sample size was based on the number of respondents needed to analyze the reasons why people choose a particular health care provider (specific aim 3).

Although much work has been done to describe the factors that influence health care utilization, the work has been done at the population level, not at the health provider level, The proportions of people that consider a particular reason when choosing a health care provider have not been published, particularly for underserved populations. For this reason, the proportion that considered each factor important was assumed to be fifty percent, providing the largest sample size for cross-sectional studies of one group of people. A 95 percent confidence interval was used with a desired precision of 5 percent. These estimates provided the numbers needed to calculate sample size:

n = $Z_{21-\alpha/2}$ P(1-P)/d2, where,

n	=	sample size
$Z_{21-\alpha/2}$	=	confidence interval
P	=	estimated proportion
d	=	desired precision

so,

n	=	(1.96)2 *.50(.50)/.052
n	=	384

Data Collection Instruments

Because there was not an existing model survey or log, the data collection instruments used were created for this study. The activity space log was designed to collect address information for the locations where the subject regularly spends his or her time and asked the respondent to list his or her home address, work address, school address, child care provider address, shopping locations, places visited for recreation and entertainment, worship locations, social visits, volunteer locations and any other location deemed significant by the respondent. Last, addresses for routine medical locations (pharmacies, doctors, dentists, etc.) were collected. The most recent public health activity space survey whose data has been published (used in the Mountain Accessibility Project in North Carolina) [32, 33] was used to validate the Log. The log and survey tools developed for this study were compared to the Mountain Accessibility Project log and the language used in the data collection tools for this study was altered.

Respondents were asked for the street address, city, state and ZIP Code, or as much of this information as they knew for each location. Respondents were given the option of drawing a map, looking the location up in a phone book or Key Map or taking the log to use resources at home to complete the form. In addition to capturing address information for the activity space locations, the respondent was asked to list how frequently he or she visited that location, the average amount of time spent at that location during each visit, and how long he or she has gone to that location.

The survey for this study was developed by the researcher using health access factors described by Donabedian [11] and Aday and Andersen [12]. Additionally language used in the survey designed for this study was compared to the language used in the National Health Interview Survey [34], National Ambulatory Medical Care Survey [35], the California Health Interview Survey [36], and the California Women's Health Survey [37], where appropriate. These surveys typically ask why a patient would not return to a particular provider, not why they chose a particular health care provider. The survey developed for this research consisted of an assessment of the importance of reasons the patient may have considered when choosing to come to that health center on that day, factors they considered when choosing their ideal health care provider, typical and past utilization of health services, and demographic characteristics of the respondent.

During Spring 2007, the log and survey were pre-tested in two phases with a group of eight people known to the researcher. The data collection instruments were also piloted before full implementation of the study with 28 respondents at the same health center. Problems identified during the pre-testing were corrected prior to the pilot. No problems

were identified during the pilot phase so no more corrections were needed prior to full implementation. Since no additional changes were necessary, these 28 respondents were included in the overall sample size. In addition to documenting and correcting problems with the log and/or survey and the data preparation process, the pre-testing and pilot phases were used to estimate how long it should take to complete the log and survey and to estimate the expected number of participants each day so that a more finite timeline for the entire project could be developed. Pre-testing estimates showed that the survey took 5-10 minutes to complete while the address log took from 10 to 45 minutes, depending on the number of locations the patient listed.

The study protocol, including forms, procedures and data collection personnel, was approved by the Committee for the Protection of Human Subjects (CPHS) at The University of Texas Health Science Center at Houston. The study was assigned protocol number HSC-SHIS-07-0482. Copies of all approval letters from CPHS can be found in Appendix C. The study was also approved by the Research Office at the Harris County Hospital District (HCHD). Copies of all approval letters from HCHD can be found in Appendix D. Prior to implementation, a presentation was made to the executive director and patient council at Settegast Health Center for their input and approval. A copy of the letter of support from the health center can be found in Appendix E.

Data Collection Procedures

The data collection team consisted of the researcher, an assistant and a bilingual graduate student each day. A field manual was prepared, and all procedures were

documented. All team members received a copy of the field manual, and a copy was available at the research site each day. This master copy of the field manual also contained originals of all forms in case more copies were needed while the team was at the research site. The field manual was updated after the pilot. A copy of the full post-pilot field manual can be found in Appendix F.

Patients were approached by the data collection team as they presented at the health center for care. The team member provided assistance with the informed consent and answered any questions the respondents had. Copies of the informed consent form can be found in Appendix G. Once consented, the subject was given the Health Care Choice Survey. It was expected that the respondents would complete the survey while in the health center, for which they received a $5 incentive. After completing the survey, those who were interested also completed the Activity Space Log. Respondents received an additional $10 incentive for completion of the log. Because the sample size was calculated to achieve a pre-specified precision of analysis of the survey, a smaller sample size was acceptable for the activity space analysis. Therefore, no efforts were made to find additional respondents to get the number of activity space log respondents to the original calculated sample size. All steps with the subject were tracked on a Project Tracking Log. A copy of this log can be found in Appendix H.

A 50-percent response rate was assumed for creating the study timeline. In the spring of 2006, the health center estimated that it would see about 7500 patients per month during 2006. Projections for 2008 are still outstanding. Assuming 350 patients a day at the health center, a 50-percent response rate and availability of the data collection team to visit the

health center, it was estimated that it would take 2 weeks to complete the data collection. In actual fact, it took 10 visits between February 25, 2008 and April 23, 2008 to capture enough responses to the survey for the analysis. The data collection team was present at the health center from opening to closing for each day of data collection. Also, the data collection team was there at least once for each day the clinic is open, Monday through Saturday.

The log and survey were self-administered using paper and pen by health center patients who agreed to the informed consent. Proxies were accepted for patients who required assistance in filling out the form. However, proxies were only accepted if the proxy was the decision maker for health care for that individual. Potential respondents above the age of 18 who made their own health care decisions but needed assistance in filling out the form were assisted by the data collection team. The data collection team reviewed the log and survey for completeness as the patients turned them in and asked the patients to complete any questions that were skipped or to clarify any unclear answers. It was expected that all questions on the survey would be completed with this verification step.

Patients were not required to provide a full address for each activity location they included on their log. They had the opportunity to consult a current phone book and a Key Map (a detailed map book of Houston/ Harris County, Texas) [38]; to provide a description of the location such as, “on South Main Street between First and Third Avenues”; or to draw a map of the location in the response space. Subjects were asked to list only one location per page and were given as many log pages as they estimated they would need to provide information about all of the places where they regularly spend time. Most subjects completed the log while at the health center. If the patient decided to take the log home to

complete they were given a self-addressed, stamped envelope to return the survey to the researcher. These subjects had an opportunity, but were not required, to provide their name, mailing address, and phone number for the researcher to use to contact them in case the log was not returned in a timely manner. The survey number was kept with this information but otherwise the consent and contact information were kept separate from the completed logs and surveys. The phone number was only used for follow-up if the patient consented. The mailing address was used for sending the respondents the remainder of their incentives. If no mailing address was provided, the patient had to return to the health center to receive the remainder of their incentives. A copy of the sheet where contact information was captured is included in Appendix I.

The pilot phase occurred during February, 2008 and the results of the pilot study were incorporated into the log and survey tools and field procedures, during February and March, 2008. Surveying began in March, 2008.

Data Preparation and Analysis Plan

The four aims of this study were analyzed using univariate statistics. All statistics were computed using SAS [39]. Because each of the aims of this study involve many intricate steps, the analysis plan that follows includes a description of the necessary data preparation, handling and analysis steps and a description of how each aim was evaluated to determine successful completion.

Specific Aim 1

To achieve this specific aim, the researcher:

1. Collected activity space data from patients at a Community Health Center using the Activity Space Log.
2. Entered this address information into an Excel Spreadsheet [40]. This entailed:
    a. Entering data exactly as listed on the form;
    b. Looking up addresses in the local phone book and online;
    c. Verifying addresses using a windshield survey;
    d. Perfecting incomplete address entries using Google Maps [41] and/ or the United States Postal Service website [42]; and,
    e. Calculating the weight of each location based on frequency and duration of visits.
3. Geocoded addresses as follows:
    a. Addresses were first batch geocoded using MapMarker [43];
    b. Unmatched records were interactively geocoded using MapMarker [43]; and,
    c. The remaining unmatched addresses were interactively geocoded using Google Earth [44].
4. Used all addresses weighted by time spent at each location to construct a primary care service area with the Multiple Location Time Weighted Index (MLTWI). This is the novel methodology.
    a. Grouped addresses by ZIP Code;

b. Summed the weights of each location within the ZIP Code;

c. Ranked the ZIP Codes by total weight;

d. Aggregated ZIP Codes using those with the most weight until the target 80% threshold was met;

e. Calculated the total area of the resulting service area using ArcGIS [45];

f. Found the mean center of the service area using ArcGIS [45];

g. Calculated the distance from the mean center to the health center using ArcGIS [45];

h. Calculated the number of ZIP Codes in the primary care service area; and,

i. Determined the number of patients that live in the service area.

5. Used all addresses except the research site weighted by time spent at each location to construct a primary care service area with the Multiple Location Time Weighted Index (MLTWI). This is the novel methodology. See Figures 7 - 9 for maps of this service area.

a. Subsetted the whole dataset to include all addresses except Settegast in Microsoft Excel [40];

b. Grouped addresses by ZIP Code;

c. Summed the weights of each location within the ZIP Code;

d. Ranked the ZIP Codes by total weight;

e. Aggregated ZIP Codes using those with the most weight until the target 80% threshold was met;

f. Calculated the total area of the resulting service area using ArcGIS [45];

g. Found the mean center of the service area using ArcGIS [45];

h. Calculated the distance from the mean center to the health center using ArcGIS [45];

i. Calculated the number of ZIP Codes in the primary care service area; and,

j. Determined the number of patients that live in the service area.

Specific Aim 1a

6. Used data from Harris County Hospital District [18] to find and calculate statistics for the ZIP Code based service area as follows:

   a. Calculated the total area of the primary care service area using ArcGIS [45];

   b. Found the mean center of the service area using ArcGIS [45];

   c. Calculated the distance from the mean center to the health center using ArcGIS [45]; and,

   d. Calculated the number of ZIP Codes in the primary care service area.

7. Used patient home addresses only to construct a primary care service area with the Griffith Commitment Index (GCI) [10]. See Figures 10 and 11 for maps of this service area.

   a. Subsetted the whole dataset to include only home addresses in Microsoft Excel [40];

   b. Grouped addresses by ZIP Code;

   c. Counted the number of patients in each ZIP Code;

d. Ranked the ZIP Codes by total number of patients;

e. Aggregated ZIP Codes using those with the most patients until the target 80% threshold was met;

f. Calculated the total area of the resulting service area using ArcGIS [45];

g. Found the mean center of the service area using ArcGIS [45];

h. Calculated the distance from the mean center to the health center using

   i. ArcGIS [45];

i. Calculated the number of ZIP Codes in the primary care service area; and,

j. Determined the number of patients that live in the service area.

8. Once all four service areas were defined and measured, the researcher:

   a. Compared total area of each primary care service area;

   b. Compared distance between the mean center and health center for each primary care service area;

   c. Compared the number of ZIP Codes in each primary care service area;

   d. Evaluated which ZIP Codes each primary care service area have in common with the others; and,

   e. Compared the number of patients and activity locations that fall into the service area.

See Figures 12 - 14 for maps comparing the HCHD given service area, the service area calculated using the Griffith Commitment Index and the service area calculated using the MLTWI using all locations except Settegast Health Center.

The responses from the activity space log were geocoded to determine the latitude and longitude of the address location. Matches were only accepted if they were exact (street name, number, directional, street type, city, state, and ZIP Code all match.)

The successful outcome of these specific aims included the creation of a methodology to describe primary care service areas with activity space data. The successful outcome of the sub-aim showed that this methodology described a service area that was at least 20 percent different than the gold standard: a primary care service area created using home addresses only with the Griffith Commitment Index. The data for this analysis can be found in Table 1.

Specific Aim 2

To achieve this specific aim, the researcher:

1- 3. Completed steps 1-3 as above.

4. Used data from Step 7 above as standard for comparison.

5. Created reduced model service areas using the Multiple Location Time Weighted Index by removing:

    a. Points by type of point (health and non-health); and

    b. Points by frequency of visit and separately by average time spent at location, regardless of point type.

6. For each reduced model, the following steps were performed:

    a. Subsetted the whole dataset to include only those points needed for the model in Microsoft Excel [40];

b. Grouped addresses by ZIP Code;

c. Summed the weights of each location within the ZIP Code;

d. Ranked the ZIP Codes by total weight;

e. Aggregated ZIP Codes using those with the most weight until the target 80% threshold was met;

f. Calculated the total area of the resulting service area using ArcGIS [45];

g. Found the mean center of the service area using ArcGIS [45];

h. Calculated the distance from the mean center to the health center using ArcGIS [45];

i. Calculated the number of ZIP Codes in the primary care service area; and,

j. Determined the number of patients that live in the service area.

See Figures 15 - 20 for maps of these reduced model MLTWI service areas.

7. Compared each reduced model service area to the full model service areas created in Step 7 above.

a. Compared total area of each primary care service area;

b. Compared distance between the mean center and health center for each primary care service area;

c. Compared the number of ZIP Codes in each primary care service area;

d. Evaluated which ZIP Codes each primary care service area have in common with the others; and,

e. Compared the number of patients and activity locations that fall into the service area.

See Figures 21 - 26 for maps comparing the full model MLTWI service area to the service areas created using the reduced model.

The successful outcome of this specific aim included the description of a minimum number of location types needed to create activity space-based primary care service areas. The reduced models were expected to be the same as or similar to the full model in order for a point or time cut-off to be acceptable. The full data used for this analysis can be found in Tables 2 through 4.

Specific Aim 3

To achieve this specific aim, the researcher:

1. Collected survey data from patients at a Community Health Center with the Health Care Choice Survey;
2. Double checked completeness when each survey was returned;
3. Edge-coded each survey;
4. Entered data into EpiData [46] for cleaning and validation; and
5. Analyzed the responses from each question to determine the frequency of each response and the percentage of times each response was chosen.

In addition to the steps outlined above, the ranges for survey data were checked using EpiData [46] to ensure the data were valid, and contingency checking was employed to assure that questions that should have been skipped had indeed been skipped. Because the

surveys were checked upon completion, there was no missing data and no imputation was needed.

The successful outcome of this specific aim was the description of those factors these patients felt were important to consider when choosing a health care provider and which factor was the most important. The researcher expected that proximity to home was one of many factors that were important to patients but was not the most important factor. The full results used for this analysis can be found in Tables 5 through 59.

Measurement

Due to the nature of the survey, options for reliability testing are limited. First, the desired respondents to the survey were people who presented at a community health center for treatment. There was no guarantee they would return to the health center within a regular time period to fill out the survey a second time, making assessment of test-retest reliability unlikely. Second, most of the questions on the survey that are situation and time dependent should not be expected to be answered the same way between a test and retest.

Content validity was tested by asking an expert in health care access and utilization if the questions asked in the survey cover the concepts of factors influencing choice of provider for the medically underserved (personal communication). Her comments influenced the content as well as the format and wording of the questions. Additionally, two experts in activity spaces were contacted (personal communication). Furthermore, the address log was compared to existing instruments [32, 33]. Their comments confirmed that the information requested on the log was appropriate for the study.

RESULTS

The results presented here are in the form of three journal articles submitted for publication. All references internal to these articles are cited at the end of each article. All tables and figures mentioned in these articles are included at the end of each article.

Article I: Importance of geographic and other factors on patient choice of primary care provider for safety net populations: a cross sectional study

ABSTRACT

Background

Access to health care research shows that several multi-factorial choices are made each time a person interacts with the health care system. Geographic health planning techniques, particularly service area calculations, oversimplify these choices. The base assumption that pervades these methodologies is that proximity equates to access without further investigation of the attributes of the patient or the health center. For example, the Harris County Hospital District encourages the use of its community health centers by patients based on the patient's home address falling into an assumed health center service area. The purpose of this research was to understand to what extent geographic factors play a role in patient choice of health care provider.

Data, Methods and Results

A convenience sample of 384 patients from a community health center that treats the medically underserved in Houston, Texas, completed a survey to identify and rate the importance of geographic and non-geographic factors for choosing a primary care provider. When asked to rate factors for choosing a provider, 76.4 percent of respondents thought that whether the health center offered free or low-cost doctors visits was very important, and 62.8 percent rated "close to home" as very important. When asked to choose the one most important reason for choosing a health care provider, the largest percentage of respondents chose the option that the health care provider could see them quickly (25.3%). "Close to home" was ranked third highest (12.0%). Indeed, all geographic reasons combined (14.8%) still only ranked third behind the options "see the patient quickly" and the provider "can meet all of the patient's health care needs" (15.6%).

Conclusions

For this patient population, geography does play a role in their choice of primary health care provider, but it is not the most important reason. Other factors, such as the provider offering low cost visits, providing comprehensive care, and seeing the patient quickly were all ranked higher than geographic reasons. The results of this research suggest that non-geographic factors that influence choice of provider should be examined and controlled for when analyzing patient geography for health services use research and service area calculations.

BACKGROUND

Research in access to health care shows that several multi-factorial choices are made each time a person interacts with the health care system [1-3]. First, the person has to choose to interact with the health care system. That means they have a health care situation (need) that, combined with their social and cultural background (predisposing factors), leads them to a desire for an interaction with the health care system. Then the person must choose to which provider to go assuming there is a health care provider available to meet that need (enabling factors). Once the decision to go to the doctor is made, a person must be able to find a provider they can afford, who speaks their language, who they can get to within their personal travel limitations, and so forth.

Geographic health planning techniques based on service area calculations tend to oversimplify these choices. The main assumption behind service area calculation methods is called distance decay, which states that people choose providers that are closest to them [4]. Because the data used in service area calculations are based on patient residence information on file in provider or insurance databases [5], the analyses can only be based on proximity of provider to patient home address.

In the 1960s, neighborhood organizers began the neighborhood health care movement [6]. Like the theory of distance decay, the basic tenet of the movement was to locate health care providers in neighborhoods where low-income people lived. This neighborhood focus continues to pervade efforts to improve access to health care for the low-income and uninsured. Funding agencies expect to get the biggest return for their investment by

expecting and/or requiring that the organizations they fund be located in or close to neighborhoods they define as medically underserved [7].

There are two important lessons of the neighborhood health center movement for geographic health services research. The first is that by having consumer-based governance systems and focusing on predisposing and enabling factors to improve access to care, the health centers are able to attract the underserved population [8]. The health centers provide a culturally sensitive service that is not found elsewhere in the community and may attract similar people living outside the neighborhoods they are expected to serve [8]. It also means that people whose closest option for health care is a particular health center may not feel comfortable there if their cultural needs are not met by that health center [8]. Therefore, the closest provider may not always be the provider of choice for all people.

The second lesson is a new appreciation for the fact that most of the uninsured are working but do not have health benefits [9, 10]. This realization is important because it means that many of the people who live in low-income neighborhoods are mobile enough to get to work. For this portion of the population, their first choice of provider may be one who is close to work. It also means that to obtain health care, many must either miss work or find a provider who is available during non-working hours [9, 10].

These factors are often overlooked in geographic-health-services-use research methodologies. The base assumption that pervades these methodologies is that proximity equates to access without further investigation of the attributes of the patient or the attributes of the health center [11]. Researchers frequently map location of provider versus some residence-based statistics such as home addresses from provider databases and/or Census-

based statistics [5, 12-16]. Based on distance from the provider, researchers declare a person has access or that a neighborhood does not [17]. There are similar policies for publicly funded community health centers. The Federal Community Health Center program expects that the funded health centers will be located in and or serve a geographic area called a Medically Underserved Area comprised of census tracts. The Harris County Hospital District assigns the surrounding ZIP Codes to each of its community health centers and assumes these ZIP Codes are the service areas for the health centers. There is no effort to understand whether the patient or neighborhood in question is Spanish speaking, for example, and whether the "closest" provider has Spanish-speaking staff or whether the geography important to the patient is related to some location other than home.

The Harris County Hospital District (HCHD) is a nonprofit, tax-supported, integrated health care delivery organization that provides health care to the residents of Harris County, Texas. In direct response to the neighborhood health movement, the HCHD began the Community Health Program in 1969. Today, there are eleven community health centers in the HCHD system [18]. Services of HCHD are limited to Harris County residents and are available on a sliding scale based on income. Most of the patients of HCHD are low-income and uninsured. Once eligibility for the sliding scale program is determined, patients are given a Gold Card.

Prior to 2003, when a person received his or her Gold Card, that person was asked to seek care at a health center near his or her residence [18, 19]. The geographic policy was an effort to balance patient loads between the centers and effectively eliminated patient choice of provider site [19]. Health centers had surrounding ZIP Codes assigned to them with no

regard for distance from the health center, and patients living in those ZIP Codes were assigned to a particular health center [19]. If a patient wanted to go to a different health center, he or she had to file a formal appeal. The policy was rescinded in 2003, but patients receiving Gold Cards are still encouraged to use particular hospitals and health centers based on home ZIP Code [19]. Even so, not all patients go to their zipped center for health care.

The research site is an HCHD Community Health Center in Northeast Houston. In 2004, 66.2 percent of the health center's patients came from the ZIP Codes assigned to the health center [18]. See Table I-1 for a breakdown of patients by ZIP Code over a four-year period.

This study was designed to evaluate the use of an expanded demographic dataset in service area calculations for primary care providers. The study consisted of collecting data from a sample of people presenting themselves at a community health center in Houston, Texas, in 2008. The study instruments included a survey, which is summarized in this paper. Study participants also completed an address log, which is summarized in separate reports. The purpose of this research was to understand to what extent geographic factors play a role in patient choice of a primary health care provider. It is part of a larger project to develop new methods for calculating primary care service areas for safety-net health care providers.

RESULTS

Respondent Demographics and Use of Health Care

The sample was primarily female, African American, non-Hispanic and non-elderly adults. Of the 322 subjects who reported a home address, 75.8 percent live within the health center's targeted ZIP Codes; the remaining 24.2 percent come from 34 other ZIP Codes. Clearly, other factors are drawing patients to this health center. See Table I-2 for a breakdown of respondent demographics.

The majority (78.9%) of respondents reported seeing any doctor three or more times a year. Of particular concern in Houston and across the United States are people who use the emergency room for primary care related visits. Of the study population, 36.5 percent reported having gone to the Emergency Room for a health need they could have had treated in a doctor's office. A majority (82.5%) of respondents to the survey reported having a regular source of health care and 89.1 percent reported that the research site is where they receive most of their health care. The respondents are also frequent users of the health center with 79.9 percent reporting that they had been there three or more times in the past five years while 68.5 percent had been there three or more times in the past year.

Of the respondents to the survey, 73.44 percent feel they have options when choosing where to receive their health care but only 21.9 percent considered going somewhere other than the research site for this interaction with the health care system.

The Role of Geography in Choice of Provider

Respondents were asked in several different ways how geography influenced their choice of health care provider. When non-geographic factors were considered, proximity to home became less important. First, respondents were asked directly about how important location was when selecting a provider and whether location meant "close to home". When asked about importance of location without factoring in other decision points, 95.6 percent said that location of health care provider is important in their choice of health provider. Respondents were then asked if location was the most important factor when choosing a health care provider. The percentage that said that location was the most important factor when choosing a health care provider dropped to 78.6 percent. Of those who said location was most important or who weren't sure if location was most important, 88.96 percent said that a location close to home was the most important factor (71.3% of total sample) when choosing a health care provider.

Next, respondents were asked to rate on a Likert-type scale geographic and non-geographic reasons for choosing a particular health care provider. When factoring in only those respondents who felt a particular reason was applicable to them, the reason for coming to the research site that day that received the highest percentage (76.4%) of "very important" responses was that the health center "offers free or low-cost doctor's visits." The highest percentage of "very important" responses to a geographical factor was for "close to home" with 62.8 percent, but had only the eighth highest percentage of very important ratings. See Table I-3 for a full listing of the reasons and ratings of the reasons the respondents decided to come to the research site for that visit.

When considering an ideal health care provider where no constraints were put on the reasons a person would choose a health care provider, considering only those people who felt an item was applicable to them, the reason that received the highest percentage of "very important" responses (78.3%) was that they would like the doctor. The geographical factor that had the highest percentage of "very important" responses (64.6%) was that the clinic is on a regular commute route or bus line. See Table I-4 for a full listing of the reasons and ratings of the reasons the respondents consider important when deciding to go to an ideal health care setting.

The third way respondents were asked to indicate how important geography was, was to pick one most important reason for choosing a health care provider from a list of all of the reasons that were given for choosing a health care provider. The most selected reason (25.3%) was that a provider could see them quickly when they called for an appointment. The second most selected reason (15.6%) was that the location could meet all of their health care needs. The third most popular reason was that the clinic was close to home (12.0%). Even if all geographic factors were collapsed into one category, geography (14.8%) was still only third behind the other two reasons listed here.

DISCUSSION

Results reported here may be skewed because a convenience sample of patients completed the survey. Potential respondents could have self selected themselves out of the study due to time constraints. This may be why a low percentage (32.8%) of respondents

reported that they work outside of the home. In addition, there was a large number of men from a community correctional facility who were looking for work or who reported that they were disabled.

Additionally, thank-you gift cards to a local grocery store were given to the respondents after the completion of the survey. Although the amounts were small, they might have been enough of an incentive to persuade people to participate.

Study participants were limited to people who said they were seeking a service at the health center at the time they were surveyed. No assurances were put into place to ensure that the respondent was actually seeking a service at the health center. It is possible there were some participants who were not seeking a service there. Also, the health center provides several services including primary care, dental, pharmacy and eligibility determination for the Harris County Hospital District Gold Card program, so it is possible that the participant was there for a service other than visiting a medical doctor.

Finally, several people self-selected themselves out of the survey in general because they did not feel like they had a choice when deciding where to receive health care because the Harris County Hospital District had "Zipped" them to that health center. It was unclear to the researcher whether these people had been "Zipped" when the policy was mandatory or afterwards. At any rate, it seems to be unclear to the patients that they have a choice of health center within the Harris County Hospital District.

CONCLUSIONS

Even though the actual choice of clinic may be more related to the Hospital District assignment of patient to clinic, the subjects of this research indicated that their preference for health care provider is more related to enabling factors provided at the health center than proximity from home to the location of the provider. For this patient population, geography plays a role in choice of health care provider, but when considered alongside non-geographical factors, it was not the most important reason. Also, other geographies besides proximity to home were important to this patient population. In particular, the geography of the subject's regular commute or regular public transportation line was important to these subjects. This geography is a proxy for the subject's activity space. In the future, geographic health services research and planning projects should examine and control for other reasons people choose health care providers when measuring access to care. Patient assignment policies, such as the one used by the Harris County Hospital District, should incorporate these other factors and other geographies when calculating service areas for its community health centers. It will not be adequate to analyze geography in isolation, nor will it be adequate to measure geographical access based solely on patient home address, to understand how patients choose a health care provider.

METHODS

Survey Design

Existing surveys that include reasons for choosing a health care provider tend to focus on patient satisfaction and/or ask why a person would not return to a particular provider. Where possible, questions for the survey used in this research were validated with existing surveys [20-22]. Additionally, an expert in access to health care helped with the construction of the survey.

The survey was approved by the Committee for the Protection of Human Subjects at The University of Texas Health Science Center at Houston and was translated into Spanish. Informed consent was received from all subjects prior to their participation in this study.

Data Collection

A data collection team of two to three people, including the researcher and a bilingual helper, surveyed patients at the health center on ten days over a two-month period. The data collection team was there for all shifts, including weekends. Potential subjects were recruited as they waited to be called for their appointment. Eligible participants included any person seeking a service at the research site that day. If the patient was a minor, a parent or legal guardian was allowed to participate. If the person was not seeking a service at the health center that day, they were not allowed to participate. Those who were eligible to participate and who were interested were given an informed consent form to read in their language of choice and were given an opportunity to ask questions before signing the

consent. Once they consented, the research team member explained the survey and gave it to the subject to complete on their own. If subjects had trouble reading, the research team member read the consent and survey to the subject. When the subject completed the survey, the survey was double-checked by a research team member to make sure that every question was answered, that every question had only one answer, and that dates of birth made sense in the context of the study. The respondents were given a $5 thank you gift for participating. Subject progress through the process was tracked, including tracking which research team member helped the subject at each point in the process.

The pool of potential participants in the study included only patients or the decision maker for a patient, aged 18 and up, who showed up at the health center when the data collection team was there. The data collection team's presence was not announced previously to the patient population.

Data Entry and Analysis

All surveys were edge coded and entered into EpiData [23]. Following the first round of data entry, the edge coding was double-checked and double data entry was used to verify the information in the database. The database was exported to SAS 9.1 for analysis of descriptive statistics [24].

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TABLES

Table I-1. Patients of Health Center by ZIP Code, 2001- 2005

	Mar 2001-Feb 2002	**Mar 2002-Feb 2003**	**Mar 2003-Feb 2004**	**Mar 2004-Feb 2005**
	n (%)	**n (%)**	**n (%)**	**n (%)**
77013	298 (2.8)	419 (3.4)	507 (3.6)	579 (3.5)
77015	834 (7.9)	1,215 (9.9)	1,408 (9.9)	1,791 (10.9)
77016	1,753 (16.5)	1,963 (15.9)	2,174 (15.3)	2,402 (14.6)
77026	1,235 (11.6)	1,441 (11.7)	1,566 (11.0)	1,757 (10.7)
77028	1,377 (13.0)	1,493 (12.1)	1,637 (11.5)	1,830 (11.2)
77044	309 (2.9)	402 (3.3)	468 (3.3)	605 (3.7)
77049	259 (2.4)	331 (2.7)	441 (3.1)	562 (3.4)
77078	776 (7.3)	901 (7.3)	1,077 (7.6)	1,334 (8.1)
Total, assigned ZIP Codes	6,841 (64.4)	8,165 (66.3)	9,278 (65.4)	10,860 (66.2)
Other ZIP Codes	3,777 (35.6)	4,153 (33.7)	4,904 (34.6)	5,553 (33.8)
Total Patients	10,618 (100.0)	12,318 (100.0)	14,182 (100.0)	16,413 (100.0)

Source: Harris County Community Assessment, 2005

Table I-2. Subject Demographics

	Gender		Race					Ethnicity		Age		
	Female	**Male**	**African American**	**Asian or Pacific Islander**	**Native American**	**White**	**Other**	**Hispanic**	**Non-Hispanic**	**0-17**	**18-64**	**65+**
	N=243	**N=141**	**N=278**	**N=3**	**N=7**	N=56	**N=40**	**N=53**	**N=331**	**N=5**	**N=337**	**N=42**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**
Female			182 (65.5)	1 (33.3)	7 (100.0)	26 (46.4)	27 (67.5)	37 (69.8)	206 (62.2)	2 (40.0)	213 (63.2)	28 (66.7)
Male			96 (34.5)	2 (66.7)	0 (0.0)	30 (53.6)	13 (32.5)	16 (30.2)	125 (37.8)	3 (60.0)	124 (36.8)	14 (33.3)
African American								0 (0.0)	278 (84.0)	4 (80.0)	238 (70.6)	36 (85.7)
Asian or Pacific Islander								0 (0.0)	3 (0.1)	0 (0.0)	2 (0.1)	1 (2.4)
Native American								2 (3.8)	5 (1.5)	0 (0.0)	7 (2.1)	0 (0.0)
White								20 (37.7)	36 (10.9)	1 (20.0)	50 (14.8)	5 (11.9)
Other								31 (58.5)	9 (2.7)	0 (0.0)	40 (11.9)	0 (0.0)
Hispanic										1 (20.0)	51 (15.1)	1 (2.4)
Non-Hispanic										4 (80.0)	286 (84.9)	41 (97.6)

Table I-3. Reasons for choosing this Health Center today, N=384

	0	1	2	3	4	5	Rank
	n	n (%)	n (%)	n (%)	n (%)	n (%)	
Clinic is close to patient's home	8	19 (5.0)	27 (7.2)	19 (5.0)	75 (20.0)	236 (62.8)	8
Clinic can meet all of patient's health care needs	10	16 (4.3)	5 (1.3)	12 (3.2)	87 (23.3)	254 (67.9)	6
Clinic is close to school/ child care location	181	21 (10.3)	27 (13.3)	25 (12.3)	46 (22.7)	84 (41.4)	16
Clinic was recommended by a friend or relative	132	15 (6.0)	32 (12.7)	27 (10.7)	71 (28.2)	107 (42.5)	15
Clinic is close to a former work location	188	25 (12.8)	45 (23.0)	24 (12.2)	35 (17.9)	67 (34.2)	17
Patient always comes to this health center	59	13 (4.0)	14 (4.3)	24 (7.4)	75 (23.1)	199 (61.2)	10
Clinic is on commute/ bus line	84	20 (6.7)	20 (6.7)	20 (6.7)	56 (18.7)	184 (61.3)	9
Clinic takes the patient's insurance	93	12 (4.1)	7 (2.4)	13 (4.5)	56 (19.2)	203 (69.8)	4
Clinic is close to a former school/ child care location	214	26 (15.3)	34 (20.0)	25 (14.7)	30 (17.7)	55 (32.4)	19
Clinic offers free or low cost doctor's visits	15	16 (4.3)	5 (1.4)	14 (3.8)	52 (14.1)	282 (76.4)	1
Clinic could see the patient quickly when they called for an appointment	19	10 (2.7)	16 (4.4)	34 (9.3)	100 (27.4)	205 (56.2)	13
Clinic could see the patient when it was convenient for the patient's schedule	13	10 (2.7)	12 (3.2)	38 (10.2)	89 (24.0)	222 (59.8)	11
Clinic will see the patient if they are uninsured	46	15 (4.4)	10 (3.0)	24 (7.1)	56 (16.6)	233 (68.9)	5
Patient likes the doctor	12	15 (4.0)	6 (1.6)	16 (4.3)	68 (18.3)	267 (71.8)	3
Clinic is close to a former home	112	13 (4.8)	29 (10.7)	26 (9.6)	61 (22.4)	143 (52.6)	14
Clinic staff speak the patient's language	23	11 (3.0)	8 (2.2)	7 (1.9)	65 (18.0)	270 (74.8)	2
Clinic is close to work	192	21 (10.9)	32 (16.7)	29 (15.1)	47 (24.5)	63 (32.8)	18
Patient likes the clinic staff	20	12 (3.3)	8 (2.2)	26 (7.1)	89 (24.5)	229 (62.9)	7
Patient was told by insurance company or by HCHD to come to this health center	75	14 (4.5)	23 (7.4)	29 (9.4)	63 (20.4)	180 (58.3)	12

0= Not Applicable; 1= Very Unimportant; 2= Unimportant; 3=Uncertain/ Neutral; 4= Important; 5= Very Important

Table I-4. Reasons for choosing ideal health care provider, N=384

	0	1	2	3	4	5	Rank
	n	n (%)	n (%)	n (%)	n (%)	n (%)	
Patient likes the doctor	16	8 (2.2)	5 (1.4)	14 (3.8)	53 (14.4)	288 (78.3)	1
Clinic is close to work	142	16 (6.6)	34 (14.1)	40 (16.5)	47 (19.4)	105 (43.4)	14
Clinic will see the patient if they are uninsured	47	11 (3.3)	7 (2.1)	18 (5.3)	60 (17.8)	241 (71.5)	6
Clinic is on commute/ bus line	70	12 (3.8)	16 (5.1)	23 (7.3)	60 (19.1)	203 (64.7)	9
Clinic takes the patient's insurance	58	6 (9.8)	8 (2.5)	10 (3.1)	55 (16.9)	247 (75.8)	3
Patient likes the clinic staff	15	7 (1.9)	6 (1.6)	22 (6.0)	73 (19.8)	261 (70.7)	7
Clinic is close to school/ child care location	186	9 (4.6)	37 (18.7)	30 (15.2)	44 (22.2)	78 (39.4)	15
Clinic offers free or low cost doctor's visits	20	8 (2.2)	7 (1.9)	11 (3.0)	67 (18.4)	271 (74.5)	4
Patient was told by insurance company or by HCHD to go there	72	15 (4.8)	28 (9.0)	49 (15.7)	58 (18.6)	162 (51.9)	12
Clinic could see the patient quickly when they called for an appointment	15	7 (1.9)	6 (1.6)	30 (8.1)	86 (23.3)	240 (65.0)	8
Clinic could see the patient when it was convenient for the patient's schedule	16	13 (3.5)	11 (3.0)	34 (9.2)	86 (23.4)	224 (60.9)	11
Clinic is close to patient's home	28	9 (2.5)	18 (5.1)	22 (6.2)	79 (22.2)	228 (64.0)	10
Clinic was recommended by a friend or relative	105	12 (4.3)	24 (8.6)	25 (9.0)	78 (28.0)	140 (50.2)	13
Clinic staff speak the patient's language	20	5 (1.4)	9 (2.5)	11 (3.0)	70 (19.2)	269 (73.9)	5
Clinic can meet all of patient's health care needs	5	9 (2.4)	4 (1.1)	9 (2.4)	61 (16.1)	296 (78.1)	2

0= Not Applicable; 1= Very Unimportant; 2= Unimportant; 3=Uncertain/ Neutral; 4= Important; 5= Very Important

Article II: Using the Multiple Location Time Weighted Index for primary care service area calculations: a cross sectional study

ABSTRACT

Background

Like any data-driven process, health-planning methodologies are limited by the quantity and quality of available data. In part because of this limitation, conventional geographic health planning methodologies like service area calculations can only depict the patient using a single, residential location rather than considering the multiple locations where a patient spends his or her time on a daily basis. Activity spaces describe a patient spatially in terms of his movement through his daily activities. However, there has been no effort to use this type of geographic description of a patient in health care service area calculations.

Results

We developed a novel methodology for service area calculations by incorporating activity space information. The service areas calculated using this new Multiple Location Time Weighted Index methodology are larger than the original service areas, but they have a mean center that is closer to the service site than the mean center for the assumed service area, suggesting this new service area is more relevant because it is based on actual use of the

facility. Furthermore, this methodology incorporates more patients into the service area than traditional methodologies based on residence only.

Conclusions

The methodology described in this paper creates a service area based on actual use of the health care provider as well as on patient movement through space. Although there were several limitations to the study, this work suggests that activity spaces can and should be used to calculate service area for a single primary care provider. The methodology presented here uses survey-based data so the feasibility of using this methodology for routine health planning efforts is questionable.

BACKGROUND

Like any data-driven process, health-planning methodologies are limited by the quantity and quality of available. Common data sources for health planning methodologies are health provider administrative databases, insurance (including Medicare) claims data, and census data [1]. The one thing that all of these databases have in common is that the geographic reference is residential. Census data are residential. The single address found on insurance claims or in administrative databases is assumed to be the patient's home address [1].

Planning methodologies may use all or a portion of the address, including geographic coordinates, ZIP Codes or census tracts, for example [1]. A variety of planning methods such as service area calculations and access to care analyses use these data [2]. Regardless of how intricate the methodology, when using only residential data the planner is relying on a single location to describe the patient. Because of the limited data, these methodologies depict the patient in a single location rather than considering the multiple locations where patient spends his or her time on a daily basis.

In general access research, geographers have taken up activity spaces to model a person using the many locations where they spend their time to measure access to employment opportunities, as an example. This research has shown that traditional models that only measure accessibility as a function of distance from home make the assumption that home is always the starting point to get to point of interest. There is no consideration of trip chaining, where destinations are chained together rather than returning home between

destinations. Also, traditional models of accessibility ignore time as a factor of accessibility. People and locations have constraints on their time and these constraints vary between individuals and locations. Kwan has researched extensively activity spaces and other methods for describing a person in the context of accessibility [3-6].

In the late 1960s, Shannon used activity spaces to demonstrate how the movement of people for their daily activities could affect community health planning efforts [7]. Additional researchers have used this activity space methodology in community health planning settings by surveying members of a community to gather detailed address information on the many locations where people in the community go to complete their daily activities. By mapping and aggregating these addresses, researchers propose ideal locations for essential personal and public health resources within that community [7-10]. Unfortunately, the majority of health planners and public health researchers has ignored the theory and continue to rely on techniques that use a single address to represent each patient.

What public health activity space methodologies have in common is a community viewpoint. Looking at a defined community, where do people who live within that community go for their daily activities? Public health researchers have thus far been interested in where activity space areas overlap and have suggested that essential services should be located where there is the most overlap [7-10]. There has been no work to transform an activity space methodology applying it to the utilization pattern of a single provider to analyze its service area. Service area calculations are used by a single health care provider to discern the area patients come from to receive services at the provider's location.

This research seeks to turn the activity space methodology from a community viewpoint to a single provider viewpoint by using activity space data to calculate service area.

Geographic planning methods for safety net providers typically use even less specific patient data, if they use patient-specific data at all. The Federal Community Health Center program uses population statistics, not actual health center user data, to define service area [11]. The Harris County Hospital District (HCHD) formerly had a policy that required patients who qualified for the financial assistance program, the Gold Card Program, attend health centers based on their home ZIP Code [12]. In turn, HCHD divided ZIP Codes between health centers in an attempt to evenly distribute patients to the health centers [personal communication]. These service areas were comprised of adjacent ZIP Codes. These service areas are only revised when a new clinic is opened. The assigned ZIP Codes formed contiguous service areas around the health centers, but they are not assigned based on patient use of the health center [12, 13].

The creation of a new methodology to calculate primary care service area based on utilization of a primary care provider and using patient activity space data is detailed in this article.

RESULTS

Research Site

The research site is one of the eleven Community Health Centers of the Harris County Hospital District (HCHD) in Northeast Houston. The HCHD is publicly funded and

serves as the backbone of Houston's health care safety net. Most of the patients of HCHD are low-income and uninsured. The research site offers comprehensive primary care services including medical, dental, and behavioral health care, pharmacy and lab services, eye care, podiatry, and health education classes. The most recent data available are from Fiscal Year 2005 and show that the research site's users were 53.2 percent Black, 8.7 percent White and 37.1 percent Hispanic. Sixty-one percent of the health center users were female and 79.9 percent of the patients were non-elderly adults [13].

Data Collection

In Spring 2008 a convenience sample of 336 patients of a public community health center in Houston, Texas, provided data on the places where they regularly spend time. This is a subset of a sample of 384 subjects who also answered a survey about what factors are important to them when they select a health care provider. The results of that survey are discussed elsewhere. An Activity Space Log based on the activity space survey used in the Mountain Accessibility Project served as the data collection instrument [14]. The Activity Space Log was available in both English and Spanish. A "regular" location was defined as a place where the subject goes at least once a month. The subject also provided information separately about all the places he or she regularly seeks some form of health care. For these health locations, "regular" was defined as a location where he or she goes at least once a year.

The log was approved by the Committee for the Protection of Human Subjects at The University of Texas Health Science Center at Houston and was translated into Spanish. Informed consent was received from all subjects prior to their participation in this study.

The subject provided as much address information as possible for each regular location by listing the physical address, a written/ verbal description of the location, or by drawing a map of the location. The subject had the option of providing a name of the location. Phone books were provided to allow the subject to look up the address and Key Maps [15] were available to help the subject identify locations not listed in the phone book. In addition to the address information, for each location the subject was asked to circle the type or types of location that place serves in the patient's life. The subject was asked how often he or she goes to that location, how much time he or she typically spends during each visit, and how long he or she has been going there. The subject was allowed to take the Activity Space Log home to complete, if necessary. In that case, the subject received a stamped, addressed envelope to return the form.

Although the majority of visits made to this health center are by independent, adult patients [13], the Activity Space Log had sections for situations where the respondent acted as the health care decision maker for the person getting service at the health center at that time. The first two sections captured data regarding the activity locations of the health care decision maker. For a majority of respondents the patient was also the health care decision maker, so they only completed these two sections. The third and fourth sections captured data regarding the activity locations of the patient, if the patient was a minor child or dependent adult.

Data Entry and Address Verification

All Activity Space Logs were entered into a Microsoft Excel spreadsheet [16]. Misspellings were maintained during data entry and entries for forms containing a map drawn on them were flagged. Periodically one place served several purposes for a subject, so the subject circled several location types on a single form. For example, a single grocery store was also where the subject banked and bought postage. When that situation occurred on the form, the location was entered into the spreadsheet several times with a single location type to distinguish the entries. That meant there could be several entries for a single location for a single subject. Time values for these multiple entries were maintained within a single entry and did not distribute the time values across entries. In total, there were 5800 entries.

The address information was corrected and perfected for every entry, which included looking up the location or person's name, if given, in the phone book or online. For business names, the business's website was consulted for location information. These addresses were perfected using USPS.com [17] and Google Maps [18]. Perfecting an address meant making sure the entire street address was present including directionals, street types, cities and ZIP Codes. Where possible, addresses were corrected using address information from a list of already verified and perfected addresses.

Locations where no name was given or the location could not be found in the phone book or online were verified during a windshield survey. If the location described by the subject was there, address information was gathered from the building. Geographic coordinates were captured with a GPS unit. These addresses were later perfected with the methods listed above.

The remaining locations that could not be verified with the windshield survey were included in the final analysis if there was a physical structure there and the location type was home or if there was a physical structure or other public space there and the location type was either work or social visit. In total, an address could not be verified for 319 entries (5.5%).

Finally, the corrected addresses were geocoded. The file was batch geocoded using MapMarker10 and matches were accepted only to a single, exact street address level [19]. Unmatched records were interactively geocoded in MapMarker 10. The remaining entries were interactively geocoded using Google Earth [20]. All entries that were corrected and perfected were also successfully geocoded.

Weighting

Each entry was weighted based on the time information provided by assigning a factor based on the number of days per year the subject reported he or she went to the location. See Table II-1 for a description of these frequency factors. Weights were derived by multiplying the frequency factor by the amount of time spent at the given location for each visit. These times were converted to percent of a day so that the final product was in terms of number of days per year the subject spends at the location. For this analysis, the time amount for how long they have been going to the location was not included in the weighting calculation.

Exclusions

It was expected that every entry would have some address information, frequency of visits to that location, the average amount of time spent at the location for each visit, and how long the subject has been living, working or visiting that location. Because this is a methodology to calculate service area for a health care provider and comparison to traditional methodologies would be necessary, it was expected that each subject would report a home location and would list the research site as a location where they receive health care.

Thirty-seven subjects had their entire log excluded either because they did not list a home location, the home location address could not be verified or one of the time components was missing for their home location or for the research site. Three more logs were excluded because the subject asked to be excluded from the study, or he or she did not complete the log correctly. The exclusion of these 40 logs meant that 672 entries were excluded. Single entries were also excluded if the address could not be verified, or if one of the time fields used for weighting was missing. 287 entries were excluded for these reasons. In total, 959 entries were excluded because of incomplete or missing data. This number includes the 319 unverifiable entries mentioned before.

Three logs were completed by a health care decision maker for the patient. These logs captured information about where the decision-maker regularly spends time and where the patient regularly spends time. For the purposes of this methodology, only addresses related to the patient were considered, so an additional 30 entries for the health care decision maker were excluded.

Finally, location type was going to be a factor in this methodology, but for this patient population, single locations serve many purposes, and those purposes varied between subjects. Due to this unexpected variability, the original types suggested could not be used in the methodology. See Table II-2 for a list of the original location types suggested. The types that could be used are major categories: health locations and non-health locations. Because type was the factor that necessitated duplicate entries, 984 duplicate entries were excluded from this analysis. This left 3827 entries for the analysis.

Comparison Service Areas

The Harris County Hospital District has assigned ZIP Codes to each of its community health centers to serve as the target service area. The ZIP Codes that make up the service area for the health center that served as the research site are 77013, 77015, 77016, 77026, 77028, 77044, 77049, and 77078 [13]. After aggregating these eight ZIP Codes, a mean center for the HCHD service area was calculated in ArcGIS [21]. This service area was compared to a service area created using a common methodology for describing service area, the Griffith Commitment Index [2], and the novel methodology described here, the Multiple Location Time Weighted Index.

The Griffith Commitment Index (GCI) with an estimated 80 percent threshold was used to establish a comparison service area for the methodology. For this index, only patient home addresses were used and were aggregated based on ZIP Code. ZIP Codes were ranked based on the number of patients living in the ZIP Code. The ZIP Codes with the most patients were aggregated to form a service area until a target threshold of 80 percent of all

patients was included in the service area. The actual threshold was 79.1 percent. See Table II-3 for the ZIP Codes included in this service area and the counts of patients for each ZIP Code. Once these ZIP Codes were identified and aggregated, the mean center for the service area was calculated in ArcGIS [21].

Multiple Location Time Weighted Index—Novel Methodology

The Griffith Commitment Index is a methodology for describing service area for a health care provider using patient home addresses [2]. Activity Spaces are a method for describing a person in terms of the places where they regularly spend their time. Additionally, each location is weighted by the amount of time they spend in each location. In the Multiple Location Time Weighted Index (MLTWI), all patient activity locations, rather than just home address, were aggregated on ZIP Code and the weights were summed for the ZIP Code. The sum of weights for each ZIP Code was used as the basis for the following service area construction. ZIP Codes were added to the service area based on an accumulating sum of ZIP Code weights until the last ZIP Code added resulted in an 80.7 percent threshold. The methodology was repeated using all patient activity locations except the research site's time contribution, resulting in an 80.6 percent threshold while including 97.6 percent of the sample in the service area. See Table II-4 for a listing of the ZIP Codes that make up these three service areas and the total weight assigned to each ZIP Code. Mean centers for each of these service areas were calculated in ArcGIS [21].

DISCUSSION

The service area based on patient residence only described a smaller total area with a mean center closer to the health center than the given or other calculated service areas. See Table II-5 for a comparison of the different service areas. The data used in this research come from a convenience sample of patients who were users of the health center during Spring 2008. This sample comprises only a small portion of the total patient population of the health center. Because it is a convenience sample, subjects self selected in or out of the data collection. Many of those who opted to take part were elderly (11% of total sample) and/or do not work (67% of total sample), including a number of men living in a community-based correctional facility (half-way house) who were looking for work (15.5% of sample with address information). Because they spend a large portion of their time at home, these home addresses heavily influenced the weighted service area calculations.

Even though the service areas calculated using the Multiple Location Time Weighted Index are larger than the given service area, they have a mean center that is closer to the service site than the mean center for the service area assumed by HCHD, suggesting it is a more relevant service area based on actual use of the health center. These two service areas also include a larger percentage of the subjects than in the comparison service area. The Griffith Commitment Index-based service area includes only 79.1 percent of the sample. The service area calculated using all patient locations, including only those ZIP Codes that accounted for 80.7 percent of the total weight, incorporates 100 percent of the sample into the service area. When reducing the locations included in the methodology by removing the

research site and including only the ZIP Codes that account for 80.6 percent of the total weight, 97.6 percent of the sample is included in the service area.

All of the service areas used in this paper are based on ZIP Codes because the given service area is based on ZIP Codes. ZIP Codes are not the ideal geographic unit for understanding movement through space because they are artificial geographic units that have relevance only to the United States Postal Service [22]. In this particular part of Harris County, ZIP Codes range in size from 6.54 square miles to 48.52 square miles, so the units comprising the service area are not uniform. Adding or subtracting one ZIP Code could change the service area size and mean center dramatically.

Many people selected themselves out of the research because they stated they did not have a choice in deciding where to go for health care. As Gold Card holders, they said HCHD told them to come to this health center. Although this policy is no longer in place, these patients still felt like they could only attend the health center to which they were originally assigned. This health center assignment could confound the service areas calculated in the development of the Multiple Location Time Weighted Index.

CONCLUSIONS

The methodology developed in this paper creates a service area that is more relevant than an assumed service area because it is based on actual use of the health care provider. It is also more relevant to a larger portion of the subjects since the methodology described here includes more subjects than traditional service area calculation methodologies (96.7 versus

79.1 percent). Furthermore, because this methodology includes all activity locations for a patient, it adds a new dimension that current methodologies which only use patient home address to understand service area, do not have-- patient movement through space. Although there were several limitations to the study, this work suggests that activity spaces can be used to calculate service area for a single health care provider. The methodology presented here uses survey-based data so the feasibility of using this methodology for routine health planning efforts is questionable.

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TABLES

Table II-1. Frequency Factor for Weighting

Frequency Description	**Frequency Factor**
More than Once per Day	730
Every Day	365
Every Weekday/ Five Days per Week	260
More than Once per Week	130
Once per Week	52
More than Once per Month	44
Once per Month	12
Three or More Times per Year	4
Two Times per Year	2
One Time per Year	1

Table II-2. Location Types

Non-Health Location Types	**Health Location Types**
Home	Routine Care
Work	Sick Care
School	Specialist
Child Care	Traditional Medicine
Grocery Shopping	Pharmacy
Other Shopping	Dentist
Convenience Mart	Mental Health Provider
Car Service (including gas)	Physical Therapist
Entertainment	Other
Worship	
Social Visit	
Volunteer	
Dining Out	
Bank	
Place to buy stamps or send letters and packages	
Other	

Table II-3. Comparison Service Area Description

Service area calculated with the Griffith Commitment Index using a target threshold of 80 percent. The actual threshold was 79.1 percent, so only the ZIP Codes with the highest number of patients were included until this threshold was met.

ZIP Code	Number of Patients Living in ZIP Code
77078	71
77028	63
77026	30
77016	28
77015	19
77020	9
77093	8
77044	7

Table II-4. Multiple Location Time Weighted Index Service Areas Description

Service areas calculated using all patient activity locations with a target threshold for inclusion of ZIP Codes until 80 percent of the total weight was included in the service area. Weight is expressed in total days per year the sample population spends in that ZIP Code.

ZIP Code	Total Weight of All Activity Locations, 80.7% actual threshold	Total Weight of All Activity Locations, less Research Site, 80.6% actual threshold
77078	20,988.51	20,988.51
77028	20,251.24	19,457.19
77016	9,706.85	9,706.85
77026	9,238.63	9,238.63
77015	5,838.41	5,838.41
77093	3,092.66	3,092.66
77020	2,946.66	2,946.66
77029	2,373.12	2,373.12
77044	2,039.33	2,039.33
77013	2,031.57	2,031.57
77049	1,750.09	1,750.09

Table II-5. Comparison of Service Areas

	HCHD Service Area	Griffith Commitment Index- Residence Only	Multiple Location Time Weighted Index Using All Activity Locations	Multiple Location Time Weighted Index Using All Activity Locations Except Research Site
Total area (Square Miles)	139.67	125.61	169.54	169.54
Number of ZIP Codes in service area	8	8	11	11
Number of ZIP Codes in common with HCHD service area	--	6	8	8
Distance from mean center to service site (miles)	4.74	3.12	3.69	3.69
Number of subjects included in service area (Percent of total subjects)	--	234 (79.1)	296 (100.0)	288 (97.3)
Number of patient activity locations included in this service area (Percent of total activity locations)		235 (6.1)	2795 (73.1)	2480 (64.9)

Article III: Minimum dataset for the Multiple Location Time Weighted Index: a cross sectional study

ABSTRACT

Background

In geographic research, there has been much work to model the activity patterns of people to analyze access to employment opportunities, for example. Activity space research has shown that home is not necessarily the center of a person's daily activities. The recent development of the Multiple Location Time Weighted Index suggests that activity space data can be used to describe service area based on actual use of a primary care provider. Because current health information systems are not configured to capture and store location and time data for more than one location per patient, survey data must be collected for use in activity space research. The purpose of the research presented here was to determine a minimum data set that could be collected continuously for activity-space-based service area calculations for primary care providers.

Data, Methods and Results

Patients of a publicly funded community health center provided information on the places where they regularly spend time including type of location, address information, frequency of visits, average amount of time spent at the location for each visit, and how long the subject had been going to the location. The full dataset was reduced by type of location and by two different time factors: frequency of visits to the location and average time spent at

the location for each visit. A total of 28 reduced datasets were created for analysis. Reduced models of an activity-space-based service area for this study population suggest that only non-health locations need to be collected for the analysis. Only locations that are visited more than once a month or are visited for at least two hours per visit are needed to create an identical service area to the full model.

Conclusions

The Multiple Location Time Weighted Index (MLTWI) was developed using data on all locations where patients go regularly to create a service area for primary care providers. This research suggests that fewer data are needed to use the MLTWI for service area calculations. The minimum data set described here will reduce the data burden on both the data providers (patients) and data users (health care providers).

BACKGROUND

Geographic health planning methodologies, such as service area calculations, are hampered by a lack of data. The restriction does not arise from having too few people in the database, but from the lack of data about those people. Administrative data on file in health information systems are not gathered for planning but rather for communication with the patient and for billing purposes. Insurance claim location data suffers from the same deficit. Likewise, Census data that may be factored into these methodologies are based on a single location per person [1]. These limitations mean that analyses can only include a single location per person and therefore can not reflect the rich diversity in location where people spend their time and the dynamic travel patterns people follow every day, both of which may be just as important in influencing a person's choice of provider as home address is [2, 3].

In general geographic research, there has been much work to model the activity patterns of people in their daily lives for use to analyze access to opportunities. The research has shown that home is not necessarily the center of a person's daily activities, so models that measure accessibility based solely on home are missing other points of origin or travel patterns that should be included in those calculations [3, 4]. Also, traditional models do not factor in time. Time constraints on individuals and on locations affect when a person could access a location and can lead to wide variability in accessibility [3, 5]. Activity spaces have been used, although less so, in public health to propose ideal locations of essential public health facilities based on modeling the activity spaces of people in a predefined community [6-10].

Recent research suggests that activity space data can be used to describe service area based on actual use of a health care provider. Using a new variation of the Griffith Commitment Index called the Multiple Location Time Weighted Index, activity location data are weighted by the time spent at the location and aggregated to a geographical unit. The units with the highest total weights are then aggregated to a set threshold to form a service area. Unlike the Griffith Commitment Index, this new methodology has the potential to include more patients in the service area because more than a single location per patient is included in the analysis. The service area then is more relevant to a larger portion of the patient population. This methodology allows health administrators to see and analyze the geographic factors besides proximity to home that may influence patients to come to their facility.

Because current health information systems are not configured to capture and store location for more than one location per patient and do not contain time data for the locations that are captured [11-13], survey data must be collected for use in activity space research. If planners would like to use the Multiple Location Time Weighted Index on an ongoing basis, routine collection of these activity space data must occur. For the Multiple Location Time Weighted Index all locations where the subject routinely spends his or her time were collected. This meant a total of 3822 activity locations for 296 subjects or an average of 12.9 locations per subject. In order to reduce the data-reporting burden of patients while controlling the data collection, maintenance, and storage management efforts by health care providers and, at the same time providing a richer picture of the patient service area, a

process for defining the optimum amount of location data that satisfies all three needs is required. Three ways to reduce the amount of data needed are discussed in this article.

RESULTS

Locations by Type

Analysis by type of location revealed that for this population, non-health locations provided the primary influence on the total service area. A service area based solely on health locations was vastly different and based primarily on specialty care provided by local safety-net hospitals, reflecting the referral patterns of the providers at the research site. A service area based on non-health locations was virtually identical to the total service area, and both included the same ZIP Codes. Further, the non-health only service area contained only four fewer subjects, for an overall subject inclusion rate of 95.9 percent. See Table III-1 for a comparison of the service areas by type of location. When using the MLTWI to create a primary care service area based only on non-health locations, only 3202 total locations were included in the overall analysis for an average of 10.8 locations per subject.

Locations by Frequency of Visit

After the analysis by type of location, models reduced by frequency of visits to the location were analyzed. The service area began to change when all locations visited less often than once a week were removed from the analysis. The change in service area was measured as 5.2 percent fewer subjects included in the service area and the loss of one ZIP

Code for a total area change of 13.7 percent. Also, when using only those locations visited at least once a week, the amount of data needed drops to an average of 6.0 locations per subject. It should be noted that one subject did not report any locations that he visited at least once a week.

However, the greatest change in the service area was seen when all locations visited less often that at least once a day were removed. The change in service area at this point was the loss of one more ZIP Code for an overall difference from the full model of 19.4 percent of the total area and 17.4 percent fewer subjects. For this reduced dataset, an average of 1.7 locations per subject was needed for the analysis. See Table III-2 for a comparison of service areas by frequency of visits.

Locations by Time Spent at Location for Each Visit

The last factor that was analyzed was amount of time spent at the location. Reduced models were created by removing locations based on the amount of time spent at the location beginning with removing locations visited for less than five minutes per visit and progressing incrementally to removing locations visited for less than nine hours per visit. Changes to the service area were seen when all locations visited for less than 2.5 hours per visit were removed from the analysis. The change in service area was measured as 4.9 percent fewer subjects included in the service area and the loss of one ZIP Code for a total area change of 13.7 percent. When using only those locations visited at least 2.5 hours per visit an average of only 3.5 locations per subject was needed for the analysis.

The largest differences were seen when all locations visited for fewer than nine hours per visit were removed. The change in service area at this point was the loss of one more ZIP Code for an overall difference from the full model of 19.4 percent of the total area and 23.6 percent fewer subjects. An average of 1.2 locations per subject was used in this analysis. See Table III-3 for a comparison of service areas by frequency of visits.

DISCUSSION

The research site is a comprehensive primary care provider that offers medical, mental and dental services as well as a pharmacy, lab, nutrition and smoking cessation and weight loss classes. Since so many health needs are met by this one location, and since it was removed from the analysis, analysis by health location was considerably limited. There were only 305 locations available for analysis and using the top 79.3 percent of ZIP Codes by weight meant that only 60.1 percent of the patients were included in the final service area.

The study population was a convenience sample of those who presented at the health center for treatment while the data collection team was present. Of those who participated in the study, 67.0 percent were unemployed and of those who provided address data 78.9 percent were unemployed. Because these subjects spend a large portion of their time at home, home address heavily influenced the weighted service area calculations and finer differences in the amount of time spent at a location expected from a working patient population were not seen.

CONCLUSIONS

The results seen here suggest that the Multiple Location Time Weighted Index (MLTWI) can be done routinely with fewer data points needed. In terms of a reduced data set needed to create MLTWI-based service areas, only non-health locations should be included. Additionally, the results suggest that the absolute minimum data that need to be collected are addresses and time information for those locations that the patient visits 5 times a week or more (an average of 2.0 locations per subject) or those locations that they go to at least 8 hours per visit (an average of 1.4 locations per subject). For this study population these levels of data collection formed a slightly reduced service area than a model containing all locations regularly visited regardless of type, frequency or time spent at location for each visit. The minimum data needed to create an identical service area to the full model are those locations visited at least more than once a month (an average of 7.9 locations per subject) or those locations where the patient spends at least 2 hours for each visit (an average of 5.1 locations per subject).

METHODS

Research Site

The research site is one of the eleven Community Health Centers of the Harris County Hospital District (HCHD) in Northeast Houston. The HCHD is publicly funded and serves as the backbone of Houston's health care safety net. Most of the patients of HCHD

are low-income and uninsured. The research site offers comprehensive primary care services including medical, dental, and behavioral health care, pharmacy and lab services, eye care, podiatry, and health education classes. The most recent data available are from Fiscal Year 2005 and show that the research site's users were 53.2 percent Black, 8.7 percent White and 37.1 percent Hispanic. Sixty-one percent of the health center users were female and 79.9 percent of the patients were non-elderly adults [14].

Data Collection

During Spring 2008, a convenience sample of 336 patients from the research site completed a log that captured information about all of the places where they regularly spend their time. For each location the respondent listed, he or she was asked to provide the type or types of location. He or she also added some sort of address or location information, and indicated how often he or she goes to the location, how long he or she spends at the location on average for each visit, and how long he or she has been going to that location. Complete details on the data collection, verification, and weighting and exclusion methods are discussed elsewhere.

The log was approved by the Committee for the Protection of Human Subjects at The University of Texas Health Science Center at Houston and was translated into Spanish. Informed consent was received from all subjects prior to their participation in this study.

Factors for Reducing Data Set

The complete dataset was reduced by type and time factors to determine whether a minimum data set could be described to facilitate ongoing collection of the data needed for the Multiple Location Time Weighted Index methodology. Location type was a targeted factor for reducing the data set to find the minimum data set. However, many study subjects reported several location types for single locations, and these types varied among the subjects. For example, a subject listed a single grocery store for food shopping, while another listed the same store as a grocery store and bank. Others listed it as their post office because they bought stamps there. Therefore, an attempt was made to group the location type categories into larger categories so the type analysis could still be completed. However, a large number of men from a community correctional facility (half-way house) who participated in the study listed other location types with their home location. These location types included such things as worship and barber services, among others. Since these locations could not be separated from the home address and home was a critical value, the only type-categories that could be analyzed were health locations and non-health locations. Therefore, location type as a factor for describing a minimum data set was severely limited for this study.

Time was the other factor for reducing the data set to find a minimum data set. Due to missing and ambiguous responses to the question "How long have you been going to the location," weights were based only on frequency and duration of visits. Examples of ambiguous responses for the length of time included “Since they’ve been open.” The opening date for some businesses could not be determined in some situations. Therefore, the

attributes of "frequency" and "duration" which were used to weight the locations were also used to factor and analyze the data.

Methods for Creating Service Areas

The data used were all locations reported by the subject except the research site. Subsets of the data were created in Microsoft Excel. Two location type and 26 time subsets were created. See Table III-4 for a listing of these levels of analysis. Each subset was grouped by ZIP Code and the weights for each location were summed for each ZIP Code. The ZIP Codes were then ranked by total weight. Using a target threshold of 80 percent, the heaviest ZIP Codes were included in the final service areas until approximately 80 percent of the total weight was included in each service area. Comparisons were made against the service area created when developing the Multiple Location Time Weighted Index methodology. This service area included the ZIP Codes that contained the top 80.6 percent of total weight of all locations the subjects visit on a regular basis excluding the research site.

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TABLES

Table III-1. Analysis by Type of Location

	Multiple Location Time Weighted Service Area	**Health Locations Only- Top 79.3% of Weighted ZIP Codes**	**Non-Health Locations Only- Top 80.6% of Weighted ZIP Codes**
Total area (Square Miles)	169.54	28.19	169.54
ZIP Codes	11	4	11
Number of ZIP Codes in common with service area	n/a	2	11
Distance from mean center to service site (miles)	3.69	13.18	3.69
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	178 (60.1)	284 (95.9)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	217 (5.7)	2256 (59.0)
Average number of locations per subject needed for analysis	11.8	1.5	10.8

Table III-2. Analysis by Frequency of Visit

	Multiple Location Time Weighted Service Area	**Service Area Based on Locations Visited More than Once a Month- Top 80.8% of Weighted ZIP Codes**	**Service Area Based on Locations Visited at Least Once a Week- Top 79.5% of Weighted ZIP Codes**	**Service Area Based on Locations Visited at Least Five Times a Week- Top 80.6% of Weighted ZIP Codes**	**Service Area Based on Locations Visited at Least Every Day- Top 79.7% of Weighted ZIP Codes**
Total area (Square Miles)	169.54	169.54	146.28	146.28	136.61
ZIP Codes	11	11	10	10	9
Number of ZIP Codes in common with service area	n/a	11	10	10	9
Distance from mean center to service site (miles)	3.69	3.69	2.98	2.98	2.99
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	281 (94.9)	273 (92.2)	248 (83.8)	238 (80.4)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	1738 (45.5)	1308 (34.2)	453 (11.2)	385 (10.1)
Average number of locations per subject needed for analysis	11.8	7.9	6.0	2.0	1.7

Table III-3. Analysis by Amount of Time Spent at Location per Visit

	Multiple Location Time Weighted Service Area	**Service Area Based on Locations Visited at Least 2 Hours per Visit- Top 80.6% of Weighted ZIP Codes**	**Service Area Based on Locations Visited at Least 2.5 Hours per Visit- Top 79.2% of Weighted ZIP Codes**	**Service Area Based on Locations Visited at Least 8 Hours per Visit- Top 80.9% of Weighted ZIP Codes**	**Service Area Based on Locations Visited at Least 9 Hours per Visit- Top 79.9% of Weighted ZIP Codes**
Total area (Square Miles)	169.54	169.54	146.28	146.28	136.61
ZIP Codes	11	11	10	10	9
Number of ZIP Codes in common with service area	n/a	11	10	10	9
Distance from mean center to service site (miles)	3.69	3.69	2.98	2.98	2.99
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	281 (94.9)	274 (92.6)	245 (82.8)	220 (74.3)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	973 (25.5)	661 (17.3)	290 (7.6)	239 (6.3)
Average number of locations per subject needed for analysis	11.8	5.1	3.5	1.4	1.2

Table III-4. Levels of analysis

Analysis by Time Spent at Location for Each Visit	**Analysis by Frequency of Visits to Location**	**Analysis by Type of Location**
At least 5 minutes	At least twice a year	Non-Health Locations
At least 10 minutes	At least three times a year	Health Locations
At least 15 minutes	At least once a month	
At least 20 minutes	More than once a month	
At least 30 minutes	At least once a week	
At least 40 minutes	More than once a week	
At least 45 minutes	At least 5 times a week	
At least 1 hour	At least every day	
At least 1.5 hours		
At least 2 hours		
At least 2.5 hours		
At least 3 hours		
At least 4 hours		
At least 5 hours		
At least 6 hours		
At least 7 hours		
At least 8 hours		
At least 9 hours		

SYNTHESIS

Conclusions

Geography plays a role in choice of provider, but it is not the most important factor for the study population. The results of the Health Care Choice Survey indicate that other factors, besides proximity to home should be considered for all geographic studies of access to health care and health planning efforts.

Additionally, it was shown that activity space data can be used to describe primary care service areas. The new methodology described here, the Multiple Location Time Weighted Index, uses data about all of the places patients spend their time to calculate service area for a primary care provider. The data requirements for the Multiple Location Time Weighted Index reduce the feasibility of using this methodology for ongoing planning efforts.

Finally, a reduced data set needed for the methodology was described in an effort to increase the feasibility of using the methodology for ongoing planning efforts. Using only non-health related locations, limiting the data collected to only those locations visited at least more than once a month, or limiting the data collected to only those locations visited for at least 2 hours per visit produced an identical service area to the one created using all places the subjects went on a regular basis

Summary and Implications

The implications of this research include an assessment of underlying assumptions in patient origin studies that could change how providers assess competition and service area by including all those locations where their patients spend time and from where patients travel to reach the provider. This research study is the first in many steps to develop and prove this new methodology. Now that the premise is proven, it may have an impact on ongoing health planning efforts for the underserved in Houston/ Harris County, Texas, that can also serve as a national model. Specifically, it may lend clarity to how planners understand competition between health care providers by expanding how we view patient origin. It may also give us a better idea of where public funding should be targeted to supplement local and private funds intended to be used to serve the medically underserved. The data requirements for the new methodology and the description of the reduced data set could also inform the design of patient information systems if these data were to be collected on an ongoing basis for this type of research.

Study limitations include the fact that a sample of only one health center's patient population was surveyed. The sample population self-selected themselves into the study so the results may not be generalizable to other safety net populations. Also, the Harris County Hospital District formerly assigned but now encourages the use if its community health centers based on patient home ZIP Code. It is unclear to what extent the subjects who participated in the study freely chose to come to this community health center over others in the HCHD system. Results may be skewed because of this assignment.

Possible sources of error included respondent selection bias. This study utilized a convenience sampling technique and potential respondents self-selected themselves out of or into the study, so there is no way to ensure that respondents were selected randomly. Self-selection out of the study may have also caused unit non-response bias. This bias was mitigated by offering incentives to respondents and allowing flexibility in completing the activity space log. There was also potential for item non-response bias if respondents refused to answer certain questions on the survey; however, all questions were answered by all subjects. At all times the researcher emphasized the confidentiality of the information provided by the patients. After the respondent completed the survey, the researcher checked it for completeness. If any questions were blank, the researcher asked the respondent to complete the question and in the case of a refusal reminded the patient of his or her confidentiality. Finally, it was possible that there was some over- or under-reporting; however, there are no known population values for the estimates being measured, and so it was unclear if and where the samples differed in a particular direction. There may also have been some social desirability bias if respondents felt there was a "right" answer to any of the questions. Questions were worded to minimize this type of bias.

TABLES

Table 1. Data for comparison of Multiple Location Time Weighted Index (MLTWI) service area to HCHD service area and Griffith Commitment Index (GCI) service area

	HCHD Service Area	Home only (GCI- 79.1% based on count)	All locations (MLTWI- 80.7% based on weight)	All locations, excluding Settegast (MLTWI- 80.5% based on weight)
Total area (Square Miles)	139.67	125.61	169.54	169.54
ZIP Codes	8	8	11	11
Number of ZIP Codes in common with HCHD service area	n/a	6	8	8
Distance from mean center to service site (miles)	4.74	3.12	3.69	3.69
Number of subjects described by this service area (percent of total subjects)	n/a	234 (79.1)	296 (100.0)	288 (97.3)
Number of patient activity locations in this service area (percent of total activity locations)	n/a	235 (6.1)	2795 (73.1)	2480 (64.9)
Average number of locations per subject needed for analysis	n/a	1.0	12.9	11.8

Table 2. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by type of location

	Full model (MLTWI- 80.5% based on weight)	Health locations only (MLTWI- 78.9% based on weight)	Health locations only, excluding Settegast (MLTWI- 79.3% based on weight)	Non-health locations only (MLTWI- 80.6% based on weight)
Total area (Square Miles)	169.54	15.63	28.19	169.54
ZIP Codes	11	2	4	11
Number of ZIP Codes in common with service area	8	2	2	8
Distance from mean center to service site (miles)	3.69	2.44	13.18	3.69
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	296 (100.0)	178 (60.1)	284 (95.9)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	481 (12.6)	217 (5.7)	2256 (59.0)
Average number of locations per subject needed for analysis	12.9	2.1	1.5	10.8

Table 3. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by frequency of visits

	Full model (MLTWI- 80.5% based on weight)	**Only locations visited at least 2 times per year (MLTWI- 80.5% based on weight)**	**Only locations visited at least 3 times per year (MLTWI- 80.5% based on weight)**	**Only locations visited at least 1 time per month (MLTWI- 80.6% based on weight)**	**Only locations visited more than 1 time per month (MLTWI- 80.8% based on weight)**
Total area (Square Miles)	169.54	169.54	169.54	169.54	169.54
ZIP Codes	11	11	11	11	11
Number of ZIP Codes in common with service area	8	8	8	8	8
Distance from mean center to service site (miles)	3.69	3.69	3.69	3.69	3.69
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	288 (97.3)	286 (96.6)	286 (96.6)	281 (94.9)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	2431 (63.6)	2401 (62.8)	2351 (61.5)	1738 (45.5)
Average number of locations per subject needed for analysis	12.9	11.6	11.5	11.3	7.9

Table 3, cont. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by frequency of visits

	Full model (MLTWI- 80.5% based on weight)	**Only locations visited at least 1 time per week (MLTWI- 79.5% based on weight)**	**Only locations visited more than 1 time per week (MLTWI- 79.9% based on weight)**	**Only locations visited at least 5 times per week (MLTWI- 80.6% based on weight)**	**Only locations visited at least every day (MLTWI- 79.7% based on weight)**
Total area (Square Miles)	169.54	146.28	146.28	146.28	136.61
ZIP Codes	11	10	10	10	9
Number of ZIP Codes in common with service area	8	7	7	7	6
Distance from mean center to service site (miles)	3.69	2.98	2.98	2.98	2.99
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	273 (92.2)	265 (89.5)	248 (83.8)	238 (80.4)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	1308 (34.2)	801 (21.0)	453 (11.9)	385 (10.1)
Average number of locations per subject needed for analysis	12.9	6	3.6	2	1.7

Table 4. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by time spent at location

	Full model (MLTWI-80.5% based on weight)	Only locations visited at least 5 minutes per visit (MLTWI-80.5% based on weight)	Only locations visited at least 10 minutes per visit (MLTWI-80.5% based on weight)	Only locations visited at least 15 minutes per visit (MLTWI-80.5% based on weight)	Only locations visited at least 20 minutes per visit (MLTWI-80.5% based on weight)
Total area (Square Miles)	169.54	169.54	169.54	169.54	169.54
ZIP Codes	11	11	11	11	11
Number of ZIP Codes in common with service area	8	8	8	8	8
Distance from mean center to service site (miles)	3.69	3.69	3.69	3.69	3.69
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	288 (97.3)	288 (97.3)	288 (97.3)	288 (97.3)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	2463 (64.4)	2388 (62.5)	2232 (58.4)	2109 (55.2)
Average number of locations per subject needed for analysis	12.9	11.8	11.4	10.8	10.3

Table 4, cont. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by time spent at location

	Full model (MLTWI-80.5% based on weight)	Only locations visited at least 30 minutes per visit (MLTWI-80.5% based on weight)	Only locations visited at least 40 minutes per visit (MLTWI-80.5% based on weight)	Only locations visited at least 45 minutes per visit (MLTWI-80.5% based on weight)	Only locations visited at least 1 hour per visit (MLTWI-80.5% based on weight)
Total area (Square Miles)	169.54	169.54	169.54	169.54	169.54
ZIP Codes	11	11	11	11	11
Number of ZIP Codes in common with service area	8	8	8	8	8
Distance from mean center to service site (miles)	3.69	3.69	3.69	3.69	3.69
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	287 (97.0)	285 (96.3)	285 (96.3)	284 (95.9)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	1946 (50.9)	1607 (42.0)	1573 (41.2)	1496 (39.1)
Average number of locations per subject needed for analysis	12.9	9.6	8.1	8	7.7

Table 4, cont. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by time spent at location

	Full model (MLTWI-80.5% based on weight)	Only locations visited at least 1.5 hours per visit (MLTWI-80.5% based on weight)	Only locations visited at least 2 hours per visit (MLTWI-80.6% based on weight)	Only locations visited at least 2.5 hours per visit (MLTWI-79.2% based on weight)	Only locations visited at least 3 hours per visit (MLTWI-79.2% based on weight)
Total area (Square Miles)	169.54	169.54	169.54	146.28	146.28
ZIP Codes	11	11	11	10	10
Number of ZIP Codes in common with service area	8	8	8	7	7
Distance from mean center to service site (miles)	3.69	3.69	3.69	2.98	2.98
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	281 (94.9)	281 (94.9)	274 (92.6)	274 (92.6)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	1030 (26.9)	973 (25.5)	661 (17.3)	645 (16.9)
Average number of locations per subject needed for analysis	12.9	5.4	5.1	3.5	3.8

Table 4, cont. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by time spent at location

	Full model (MLTWI- 80.5% based on weight)	**Only locations visited at least 4 hours per visit (MLTWI- 79.7% based on weight)**	**Only locations visited at least 5 hours per visit (MLTWI- 80.1% based on weight)**	**Only locations visited at least 6 hours per visit (MLTWI- 80.5% based on weight)**
Total area (Square Miles)	169.54	146.28	146.28	146.28
ZIP Codes	11	10	10	10
Number of ZIP Codes in common with service area	8	7	7	7
Distance from mean center to service site (miles)	3.69	2.98	2.98	2.98
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	265 (89.5)	257 (86.8)	250 (84.5)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	492 (12.9)	372 (9.7)	324 (8.5)
Average number of locations per subject needed for analysis	12.9	2.5	1.8	1.6

Table 4, cont. Data for comparison of full model Multiple Location Time Weighted Index (MLTWI) to reduced models by time spent at location

	Full model (MLTWI- 80.5% based on weight)	**Only locations visited at least 7 hours per visit (MLTWI- 80.6% based on weight)**	**Only locations visited at least 8 hours per visit (MLTWI- 80.9% based on weight)**	**Only locations visited at least 9 hours per visit (MLTWI- 79.9% based on weight)**
Total area (Square Miles)	169.54	146.28	146.28	136.61
ZIP Codes	11	10	10	9
Number of ZIP Codes in common with service area	8	7	7	6
Distance from mean center to service site (miles)	3.69	2.98	2.98	2.99
Number of subjects described by this service area (percent of total subjects)	288 (97.3)	247 (83.4)	245 (82.8)	220 (74.3)
Number of patient activity locations in this service area (percent of total activity locations)	2480 (64.9)	296 (7.7)	290 (7.6)	239 (6.3)
Average number of locations per subject needed for analysis	12.9	1.4	1.4	1.2

Table 5. Survey Question 5: How often does the patient usually see any medical doctor?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Usually never	14 (3.6)	7 (2.9)	7 (5.0)	1 (1.9)	13 (3.9)	11 (4.0)	1 (33.3)	0 (0.0)	2 (3.6)	0 (0.0)
One time a year	27 (7.0)	13 (5.3)	14 (9.9)	4 (7.5)	23 (6.9)	20 (7.2)	0 (0.0)	1 (14.3)	4 (7.1)	2 (5.0)
Two times a year	40 (10.4)	22 (9.1)	18 (12.8)	5 (9.4)	35 (10.6)	29 (10.4)	0 (0.0)	1 (14.3)	6 (10.7)	4 (10.0)
Three or more times a year	303 (78.9)	201 (82.7)	102 (72.3)	43 (81.1)	260 (78.5)	218 (78.4)	2 (66.7)	5 (71.4)	44 (78.6)	34 (85.0)

AAPI = Asian American/ Pacific Islander

Table 6. Survey Question 6: Have you or the patient been told or know that he or she has gone to the emergency room for something that could have been taken care of at a doctor's office or clinic?

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	140 (36.5)	85 (35.0)	55 (39.0)	15 (28.3)	125 (37.8)	108 (38.8)	1 (33.3)	2 (28.6)	15 (26.8)	14 (35.0)
No	218 (56.8)	148 (60.9)	70 (49.6)	36 (67.9)	182 (55.0)	150 (54.0)	1 (33.3)	5 (71.4)	36 (64.3)	26 (65.0)
Don't Know	26 (6.8)	10 (4.1)	16 (11.3)	2 (3.8)	24 (7.3)	20 (7.2)	1 (33.3)	0 (0.0)	5 (8.9)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 7. Survey Question 7: The patient has a medical doctor/ clinic he or she goes to regularly.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	317 (82.6)	211 (86.8)	106 (75.2)	40 (75.5)	277 (83.7)	234 (84.2)	2 (66.7)	6 (85.7)	44 (78.6)	31 (77.5)
No	62 (16.1)	29 (11.9)	33 (23.4)	12 (22.6)	50 (15.1)	41 (14.7)	1 (33.3)	1 (14.3)	11 (19.6)	8 (20.0)
Don't Know	5 (1.3)	3 (1.2)	2 (1.4)	1 (1.9)	4 (1.2)	3 (1.1)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)

AAPI = Asian American/ Pacific Islander

Table 8. Survey Question 8: Settegast Health Center is where the patient receives most of his or her healthcare.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	342 (89.1)	221 (90.9)	121 (85.8)	44 (83.0)	298 (90.0)	253 (91.0)	1 (33.3)	6 (85.7)	47 (83.9)	35 (87.5)
No	38 (9.9)	21 (8.6)	17 (12.1)	9 (17.0)	29 (8.8)	24 (8.6)	2 (66.7)	1 (14.3)	6 (10.7)	5 (12.5)
Don't Know	4 (1.0)	1 (0.4)	3 (2.1)	0 (0.0)	4 (1.2)	1 (0.4)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 9. Survey Question 9: How many times has the patient been to Settegast Health Center in the past 5 years?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Never	21 (5.5)	10 (4.1)	11 (7.8)	5 (9.4)	16 (4.8)	14 (5.0)	0 (0.0)	0 (0.0)	4 (7.1)	3 (7.5)
Once	18 (4.7)	8 (3.3)	10 (7.1)	4 (7.5)	14 (4.2)	10 (3.6)	1 (33.3)	1 (14.3)	3 (5.4)	3 (7.5)
Twice	38 (9.9)	23 (9.5)	15 (10.6)	9 (17.0)	29 (8.8)	24 (8.6)	0 (0.0)	1 (14.3)	6 (10.7)	7 (17.5)
Three or more times	307 (79.9)	202 (83.1)	105 (74.5)	35 (66.0)	272 (82.2)	230 (82.7)	2 (66.7)	5 (71.4)	43 (76.8)	27 (67.5)

AAPI = Asian American/ Pacific Islander

Table 10. Survey Question 10: How many times has the patient been to Settegast Health Center in the past year?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Never	29 (7.6)	16 (6.6)	13 (9.2)	8 (15.1)	21 (6.3)	16 (5.8)	1 (33.3)	1 (14.3)	6 (10.7)	5 (12.5)
Once	34 (8.9)	15 (6.2)	19 (13.5)	7 (13.2)	27 (8.2)	22 (7.9)	1 (33.3)	0 (0.0)	4 (7.1)	7 (17.5)
Twice	58 (15.1)	36 (14.8)	22 (15.6)	9 (17.0)	49 (14.8)	42 (15.1)	0 (0.0)	1 (14.3)	9 (16.1)	6 (15.0)
Three or more times	263 (68.5)	176 (72.4)	87 (61.7)	29 (54.7)	234 (70.7)	198 (71.2)	1 (33.3)	5 (71.4)	37 (66.1)	22 (55.0)

AAPI = Asian American/ Pacific Islander

Table 11. Survey Question 11: I feel I have a choice when choosing a medical doctor/ clinic for the patient.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	282 (73.4)	176 (72.4)	106 (75.2)	32 (60.4)	250 (75.5)	213 (76.6)	2 (66.7)	5 (71.4)	38 (67.9)	24 (60.0)
No	76 (19.8)	48 (19.8)	28 (19.9)	14 (26.4)	62 (18.7)	50 (18.0)	1 (33.3)	2 (28.6)	10 (17.9)	13 (32.5)
Don't Know	26 (6.8)	19 (7.8)	7 (5.0)	7 (13.2)	19 (5.7)	15 (5.4)	0 (0.0)	0 (0.0)	8 (14.3)	3 (7.5)

AAPI = Asian American/ Pacific Islander

Table 12. Survey Question 12: I considered going/ taking the patient to other doctors/ clinics/ health care locations before choosing to come to Settegast Health Center today.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	84 (21.9)	50 (20.6)	34 (24.1)	6 (11.3)	78 (23.6)	66 (23.7)	3 (100.0)	1 (14.3)	11 (19.6)	3 (7.5)
No	291 (75.8)	186 (76.5)	105 (74.5)	45 (84.9)	246 (74.3)	206 (74.1)	0 (0.0)	6 (85.7)	42 (75.0)	37 (92.5)
Don't Know	9 (2.3)	7 (2.9)	2 (1.4)	2 (3.8)	7 (2.1)	6 (2.2)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 13. Survey Question 13: The location of a medical doctor/ clinic is important to me.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	367 (95.6)	236 (97.1)	131 (92.9)	50 (94.3)	317 (95.8)	268 (96.4)	3 (100.0)	7 (100.0)	51 (91.1)	38 (95.0)
No	15 (3.9)	6 (2.5)	9 (6.4)	3 (5.7)	12 (3.6)	10 (3.6)	0 (0.0)	0 (0.0)	3 (5.4)	2 (5.0)
Don't Know	2 (0.5)	1 (0.4)	1 (0.7)	0 (0.0)	2 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 14. Survey Question 14: The location of a medical doctor/ clinic is the most important factor in choosing where to receive health care.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	302 (78.6)	195 (80.2)	107 (75.9)	38 (71.7)	264 (79.8)	228 (82.0)	2 (66.7)	7 (100.0)	40 (71.4)	25 (62.5)
No	76 (19.8)	43 (17.7)	33 (23.4)	13 (24.5)	63 (19.0)	46 (16.5)	1 (33.3)	0 (0.0)	15 (26.8)	14 (35.0)
Don’t Know	6 (1.6)	5 (2.1)	1 (0.7)	2 (3.8)	4 (1.2)	4 (1.4)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)

AAPI = Asian American/ Pacific Islander

Table 15. Survey Question 15: The MOST important factor in choosing a medical doctor/ clinic is whether the location is close to the patient's primary home address.

		Gender		**Ethnicity**		**Race**				
	N = 308	Female N= 200	Male N= 108	Hispanic N= 40	Not Hispanic N= 268	African American N= 232	AAPI N= 2	Native American N= 7	White N= 41	Other N= 26
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Yes	274 (89.0)	179 (89.5)	95 (88.0)	36 (90.0)	238 (88.8)	208 (89.7)	2 (100.0)	5 (71.4)	36 (87.8)	23 (88.5)
No	28 (9.1)	18 (9.0)	10 (9.3)	2 (5.0)	26 (9.7)	20 (8.6)	0 (0.0)	2 (28.6)	4 (9.8)	2 (7.7)
Don't Know	6 (1.9)	3 (1.5)	3 (2.8)	2 (5.0)	4 (1.5)	4 (1.7)	0 (0.0)	0 (0.0)	1 (2.4)	1 (3.8)

AAPI = Asian American/ Pacific Islander

Table 16. Survey Question 16: Where did the patient come directly from to get to Settegast Health Center today?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Home	350 (91.1)	224 (92.2)	126 (89.4)	49 (92.5)	301 (90.9)	253 (91.0)	3 (100.0)	7 (100.0)	50 (89.3)	37 (92.5)
Work	12 (3.1)	9 (3.7)	3 (2.1)	3 (5.7)	9 (2.7)	8 (2.9)	0 (0.0)	0 (0.0)	2 (3.6)	2 (5.0)
School	3 (0.8)	2 (0.8)	1 (0.7)	1 (1.9)	2 (0.6)	2 (0.7)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.5)
Child Care Provider	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Worship	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Shopping	1 (0.3)	0 (0.0)	1 (0.7)	0 (0.0)	1 (0.3)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Volunteer location	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Dining Out	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Entertainment	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Another Health Care provider	2 (0.5)	1 (0.4)	1 (0.7)	0 (0.0)	2 (0.6)	1 (0.4)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
Friend or Relative's House	4 (1.0)	4 (1.6)	0 (0.0)	0 (0.0)	4 (1.2)	4 (1.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other	10 (2.6)	2 (0.8)	8 (5.7)	0 (0.0)	10 (3.0)	7 (2.5)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Don't Know	2 (0.5)	1 (0.4)	1 (0.7)	0 (0.0)	2 (0.6)	2 (0.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Table 17. Survey Question 17: Reasons for coming to Settegast for this health care visit-- The clinic is close to the patient's home.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	8 (2.1)	5 (2.1)	3 (2.1)	2 (3.8)	6 (1.8)	3 (1.1)	1 (33.3)	0 (0.0)	3 (5.4)	1 (2.5)
Very Unimportant	19 (4.9)	10 (4.1)	9 (6.4)	4 (7.5)	15 (4.5)	14 (5.0)	0 (0.0)	0 (0.0)	2 (3.6)	3 (7.5)
Unimportant	27 (7.0)	10 (4.1)	17 (12.1)	3 (5.7)	24 (7.3)	16 (5.8)	1 (33.3)	0 (0.0)	6 (10.7)	4 (10.0)
Uncertain or Neutral	19 (4.9)	13 (5.3)	6 (4.3)	2 (3.8)	17 (5.1)	12 (4.3)	0 (0.0)	0 (0.0)	4 (7.1)	3 (7.5)
Important	75 (19.5)	50 (20.6)	25 (17.7)	7 (13.2)	68 (20.5)	56 (20.1)	0 (0.0)	1 (14.3)	13 (23.2)	5 (12.5)
Very Important	236 (61.5)	155 (63.8)	81 (57.4)	35 (66.0)	201 (60.7)	177 (63.7)	1 (33.3)	6 (85.7)	28 (50.0)	24 (60.0)

AAPI = Asian American/ Pacific Islander

Table 18. Survey Question 18: Reasons for coming to Settegast for this health care visit-- They can meet all of the patient's health needs.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	10 (2.6)	9 (3.7)	1 (0.7)	1 (1.9)	9 (2.7)	7 (2.5)	0 (0.0)	1 (14.3)	1 (1.8)	1 (2.5)
Very Unimportant	16 (4.2)	6 (2.5)	10 (7.1)	1 (1.9)	15 (4.5)	13 (4.7)	0 (0.0)	0 (0.0)	2 (3.6)	1 (2.5)
Unimportant	5 (1.3)	3 (1.2)	2 (1.4)	3 (5.7)	2 (0.6)	1 (0.4)	0 (0.0)	0 (0.0)	2 (3.6)	2 (5.0)
Uncertain or Neutral	12 (3.1)	8 (3.3)	4 (2.8)	2 (3.8)	10 (3.0)	8 (2.9)	0 (0.0)	0 (0.0)	1 (1.8)	3 (7.5)
Important	87 (22.7)	60 (24.7)	27 (19.1)	10 (18.9)	77 (23.3)	61 (21.9)	2 (66.7)	2 (28.6)	14 (25.0)	8 (20.0)
Very Important	254 (66.1)	157 (64.6)	97 (68.8)	36 (67.9)	218 (65.9)	188 (67.6)	1 (33.3)	4 (57.1)	36 (64.3)	25 (62.5)

AAPI = Asian American/ Pacific Islander

Table 19. Survey Question 19: Reasons for coming to Settegast for this health care visit-- The clinic is close to my or the patient's school/ child care provider.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	181 (47.1)	111 (45.7)	70 (49.6)	25 (47.2)	156 (47.1)	124 (44.6)	1 (33.3)	5 (71.4)	35 (62.5)	16 (40.0)
Very Unimportant	21 (5.5)	12 (4.9)	9 (6.4)	2 (3.8)	19 (5.7)	16 (5.8)	1 (33.3)	0 (0.0)	3 (5.4)	1 (2.5)
Unimportant	27 (7.0)	16 (6.6)	11 (7.8)	3 (5.7)	24 (7.3)	17 (6.1)	1 (33.3)	0 (0.0)	4 (7.1)	5 (12.5)
Uncertain or Neutral	25 (6.5)	14 (5.8)	11 (7.8)	5 (9.4)	20 (6.0)	16 (5.8)	0 (0.0)	0 (0.0)	4 (7.1)	5 (12.5)
Important	46 (12.0)	32 (13.2)	14 (9.9)	4 (7.5)	42 (12.7)	39 (14.0)	0 (0.0)	0 (0.0)	4 (7.1)	3 (7.5)
Very Important	84 (21.9)	58 (23.9)	26 (18.4)	14 (26.4)	70 (21.1)	66 (23.7)	0 (0.0)	2 (28.6)	6 (10.7)	10 (25.0)

AAPI = Asian American/ Pacific Islander

Table 20. Survey Question 20: Reasons for coming to Settegast for this health care visit-- The clinic was recommended by a friend or relative.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	132 (34.4)	91 (37.4)	41 (29.1)	18 (34.0)	114 (34.4)	91 (32.7)	1 (33.3)	2 (28.6)	25 (44.6)	13 (32.5)
Very Unimportant	15 (3.9)	3 (1.2)	12 (8.5)	3 (5.7)	12 (3.6)	8 (2.9)	0 (0.0)	0 (0.0)	6 (10.7)	1 (2.5)
Unimportant	32 (8.3)	19 (7.8)	13 (9.2)	3 (5.7)	29 (8.8)	24 (8.6)	1 (33.3)	0 (0.0)	6 (10.7)	1 (2.5)
Uncertain or Neutral	27 (7.0)	18 (7.4)	9 (6.4)	2 (3.8)	25 (7.6)	20 (7.2)	1 (33.3)	0 (0.0)	4 (7.1)	2 (5.0)
Important	71 (18.5)	45 (18.5)	26 (18.4)	11 (20.8)	60 (18.1)	56 (20.1)	0 (0.0)	1 (14.3)	4 (7.1)	10 (25.0)
Very Important	107 (27.9)	67 (27.6)	40 (28.4)	16 (30.2)	91 (27.5)	79 (28.4)	0 (0.0)	4 (57.1)	11 (19.6)	13 (32.5)

AAPI = Asian American/ Pacific Islander

Table 21. Survey Question 21: Reasons for coming to Settegast for this health care visit-- The clinic is close to my or the patient's former work location.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	188 (49.0)	124 (51.0)	64 (45.4)	22 (41.5)	166 (50.2)	134 (48.2)	2 (66.7)	4 (57.1)	30 (53.6)	18 (45.0)
Very Unimportant	25 (6.5)	11 (4.5)	14 (9.9)	5 (9.4)	20 (6.0)	17 (6.1)	0 (0.0)	0 (0.0)	5 (8.9)	3 (7.5)
Unimportant	45 (11.7)	29 (11.9)	16 (11.3)	4 (7.5)	41 (12.4)	33 (11.9)	1 (33.3)	0 (0.0)	8 (14.3)	3 (7.5)
Uncertain or Neutral	24 (6.3)	10 (4.1)	14 (9.9)	6 (11.3)	18 (5.4)	17 (6.1)	0 (0.0)	0 (0.0)	2 (3.6)	5 (12.5)
Important	35 (9.1)	23 (9.5)	12 (8.5)	6 (11.3)	29 (8.8)	27 (9.7)	0 (0.0)	0 (0.0)	2 (3.6)	6 (15.0)
Very Important	67 (17.4)	46 (18.9)	21 (14.9)	10 (18.9)	57 (17.2)	50 (18.0)	0 (0.0)	3 (42.9)	9 (16.1)	5 (12.5)

AAPI = Asian American/ Pacific Islander

Table 22. Survey Question 22: Reasons for coming to Settegast for this health care visit-- The patient has always come here.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	59 (15.4)	32 (13.2)	27 (19.1)	10 (18.9)	49 (14.8)	34 (12.2)	2 (66.7)	2 (28.6)	14 (25.0)	7 (17.5)
Very Unimportant	13 (3.4)	7 (2.9)	6 (4.3)	2 (3.8)	11 (3.3)	10 (3.6)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Unimportant	14 (3.6)	6 (2.5)	8 (5.7)	2 (3.8)	12 (3.6)	10 (3.6)	0 (0.0)	0 (0.0)	4 (7.1)	0 (0.0)
Uncertain or Neutral	24 (6.3)	13 (5.3)	11 (7.8)	3 (5.7)	21 (6.3)	16 (5.8)	0 (0.0)	0 (0.0)	3 (5.4)	5 (12.5)
Important	75 (19.5)	49 (20.2)	26 (18.4)	8 (15.1)	67 (20.2)	57 (20.5)	1 (33.3)	2 (28.6)	7 (12.5)	8 (20.0)
Very Important	199 (51.8)	136 (56.0)	63 (44.7)	28 (52.8)	171 (51.7)	151 (54.3)	0 (0.0)	3 (42.9)	25 (44.6)	20 (50.0)

AAPI = Asian American/ Pacific Islander

Table 23. Survey Question 23: Reasons for coming to Settegast for this health care visit-- The clinic is on my or the patient's commute/ bus line.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	84 (21.9)	64 (26.3)	20 (14.2)	18 (34.0)	66 (19.9)	48 (17.3)	1 (33.3)	3 (42.9)	16 (28.6)	16 (40.0)
Very Unimportant	20 (5.2)	12 (4.9)	8 (5.7)	4 (7.5)	16 (4.8)	13 (4.7)	0 (0.0)	0 (0.0)	6 (10.7)	1 (2.5)
Unimportant	20 (5.2)	18 (7.4)	2 (1.4)	3 (5.7)	17 (5.1)	14 (5.0)	1 (33.3)	0 (0.0)	1 (1.8)	4 (10.0)
Uncertain or Neutral	20 (5.2)	9 (3.7)	11 (7.8)	4 (7.5)	16 (4.8)	12 (4.3)	1 (33.3)	0 (0.0)	4 (7.1)	3 (7.5)
Important	56 (14.6)	32 (13.2)	24 (17.0)	3 (5.7)	53 (16.0)	44 (15.8)	0 (0.0)	0 (0.0)	9 (16.1)	3 (7.5)
Very Important	184 (47.9)	108 (44.4)	76 (53.9)	21 (39.6)	163 (49.2)	147 (52.9)	0 (0.0)	4 (57.1)	20 (35.7)	13 (32.5)

AAPI = Asian American/ Pacific Islander

Table 24. Survey Question 24: Reasons for coming to Settegast for this health care visit-- The clinic takes the patient's insurance.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	93 (24.2)	64 (26.3)	29 (20.6)	11 (20.8)	82 (24.8)	69 (24.8)	1 (33.3)	1 (14.3)	12 (21.4)	10 (25.0)
Very Unimportant	12 (3.1)	5 (2.1)	7 (5.0)	0 (0.0)	12 (3.6)	10 (3.6)	1 (33.3)	0 (0.0)	1 (1.8)	0 (0.0)
Unimportant	7 (1.8)	5 (2.1)	2 (1.4)	0 (0.0)	7 (2.1)	6 (2.2)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
Uncertain or Neutral	13 (3.4)	8 (3.3)	5 (3.5)	2 (3.8)	11 (3.3)	10 (3.6)	0 (0.0)	0 (0.0)	1 (1.8)	2 (5.0)
Important	56 (14.6)	35 (14.4)	21 (14.9)	5 (9.4)	51 (15.4)	41 (14.7)	1 (33.3)	0 (0.0)	10 (17.9)	4 (10.0)
Very Important	203 (52.9)	126 (51.9)	77 (54.6)	35 (66.0)	168 (50.8)	142 (51.1)	0 (0.0)	6 (85.7)	31 (55.4)	24 (60.0)

AAPI = Asian American/ Pacific Islander

Table 25. Survey Question 25: Reasons for coming to Settegast for this health care visit-- The clinic is close to my or the patient's former school/ child care provider.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	214 (55.7)	140 (57.6)	74 (52.5)	32 (60.4)	182 (55.0)	146 (52.5)	2 (66.7)	6 (85.7)	36 (64.3)	24 (60.0)
Very Unimportant	26 (6.8)	15 (6.2)	11 (7.8)	2 (3.8)	24 (7.3)	20 (7.2)	0 (0.0)	0 (0.0)	5 (8.9)	1 (2.5)
Unimportant	34 (8.9)	24 (9.9)	10 (7.1)	3 (5.7)	31 (9.4)	25 (9.0)	1 (33.3)	0 (0.0)	3 (5.4)	5 (12.5)
Uncertain or Neutral	25 (6.5)	15 (6.2)	10 (7.1)	4 (7.5)	21 (6.3)	19 (6.8)	0 (0.0)	0 (0.0)	3 (5.4)	3 (7.5)
Important	30 (7.8)	12 (4.9)	18 (12.8)	3 (5.7)	27 (8.2)	26 (9.4)	0 (0.0)	0 (0.0)	1 (1.8)	3 (7.5)
Very Important	55 (14.3)	37 (15.2)	18 (12.8)	9 (17.0)	46 (13.9)	42 (15.1)	0 (0.0)	1 (14.3)	8 (14.3)	4 (10.0)

AAPI = Asian American/ Pacific Islander

Table 26. Survey Question 26: Reasons for coming to Settegast for this health care visit-- The clinic offers free or low-cost doctor's visits.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	15 (3.9)	10 (4.1)	5 (3.5)	2 (3.8)	13 (3.9)	12 (4.3)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Very Unimportant	16 (4.2)	8 (3.3)	8 (5.7)	2 (3.8)	14 (4.2)	12 (4.3)	0 (0.0)	0 (0.0)	3 (5.4)	1 (2.5)
Unimportant	5 (1.3)	3 (1.2)	2 (1.4)	0 (0.0)	5 (1.5)	5 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Uncertain or Neutral	14 (3.6)	7 (2.9)	7 (5.0)	3 (5.7)	11 (3.3)	10 (3.6)	0 (0.0)	0 (0.0)	2 (3.6)	2 (5.0)
Important	52 (13.5)	35 (14.4)	17 (12.1)	7 (13.2)	45 (13.6)	35 (12.6)	1 (33.3)	0 (0.0)	10 (17.9)	6 (15.0)
Very Important	282 (73.4)	180 (74.1)	102 (72.3)	39 (73.6)	243 (73.4)	204 (73.4)	2 (66.7)	7 (100.0)	38 (67.9)	31 (77.5)

AAPI = Asian American/ Pacific Islander

Table 27. Survey Question 27: Reasons for coming to Settegast for this health care visit-- They could see the patient quickly.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	19 (4.9)	12 (4.9)	7 (5.0)	3 (5.7)	16 (4.8)	13 (4.7)	0 (0.0)	0 (0.0)	3 (5.4)	3 (7.5)
Very Unimportant	10 (2.6)	5 (2.1)	5 (3.5)	0 (0.0)	10 (3.0)	8 (2.9)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	16 (4.2)	11 (4.5)	5 (3.5)	2 (3.8)	14 (4.2)	12 (4.3)	0 (0.0)	0 (0.0)	3 (5.4)	1 (2.5)
Uncertain or Neutral	34 (8.9)	25 (10.3)	9 (6.4)	2 (3.8)	32 (9.7)	25 (9.0)	2 (66.7)	1 (14.3)	4 (7.1)	2 (5.0)
Important	100 (26.0)	68 (28.0)	32 (22.7)	12 (22.6)	88 (26.6)	77 (27.7)	1 (33.3)	1 (14.3)	12 (21.4)	9 (22.5)
Very Important	205 (53.4)	122 (50.2)	83 (58.9)	34 (64.2)	171 (51.7)	143 (51.4)	0 (0.0)	5 (71.4)	32 (57.1)	25 (62.5)

AAPI = Asian American/ Pacific Islander

Table 28. Survey Question 28: Reasons for coming to Settegast for this health care visit-- They could see the patient when it was convenient for me or the patient.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	13 (3.4)	8 (3.3)	5 (3.5)	0 (0.0)	13 (3.9)	10 (3.6)	0 (0.0)	0 (0.0)	1 (1.8)	2 (5.0)
Very Unimportant	10 (2.6)	4 (1.6)	6 (4.3)	0 (0.0)	10 (3.0)	8 (2.9)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	12 (3.1)	9 (3.7)	3 (2.1)	2 (3.8)	10 (3.0)	10 (3.6)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Uncertain or Neutral	38 (9.9)	25 (10.3)	13 (9.2)	2 (3.8)	36 (10.9)	27 (9.7)	3 (100.0)	0 (0.0)	5 (8.9)	3 (7.5)
Important	89 (23.2)	58 (23.9)	31 (22.0)	14 (26.4)	75 (22.7)	65 (23.4)	0 (0.0)	1 (14.3)	13 (23.2)	10 (25.0)
Very Important	222 (57.8)	139 (57.2)	83 (58.9)	35 (66.0)	187 (56.5)	158 (56.8)	0 (0.0)	6 (85.7)	33 (58.9)	25 (62.5)

AAPI = Asian American/ Pacific Islander

Table 29. Survey Question 29: Reasons for coming to Settegast for this health care visit-- The clinic will see the patient if they are uninsured.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	46 (12.0)	35 (14.4)	11 (7.8)	8 (15.1)	38 (11.5)	33 (11.9)	1 (33.3)	0 (0.0)	8 (14.3)	4 (10.0)
Very Unimportant	15 (3.9)	7 (2.9)	8 (5.7)	1 (1.9)	14 (4.2)	13 (4.7)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	10 (2.6)	7 (2.9)	3 (2.1)	2 (3.8)	8 (2.4)	8 (2.9)	0 (0.0)	0 (0.0)	0 (0.0)	2 (5.0)
Uncertain or Neutral	24 (6.3)	12 (4.9)	12 (8.5)	1 (1.9)	23 (6.9)	21 (7.6)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Important	56 (14.6)	40 (16.5)	16 (11.3)	9 (17.0)	47 (14.2)	35 (12.6)	1 (33.3)	1 (14.3)	10 (17.9)	9 (22.5)
Very Important	233 (60.7)	142 (58.4)	91 (64.5)	32 (60.4)	201 (60.7)	168 (60.4)	1 (33.3)	6 (85.7)	33 (58.9)	25 (62.5)

AAPI = Asian American/ Pacific Islander

Table 30. Survey Question 30: Reasons for coming to Settegast for this health care visit-- The patient likes the doctor.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	12 (3.1)	5 (2.1)	7 (5.0)	2 (3.8)	10 (3.0)	10 (3.6)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)
Very Unimportant	15 (3.9)	7 (2.9)	8 (5.7)	4 (7.5)	11 (3.3)	8 (2.9)	0 (0.0)	0 (0.0)	5 (8.9)	2 (5.0)
Unimportant	6 (1.6)	3 (1.2)	3 (2.1)	1 (1.9)	5 (1.5)	5 (1.8)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)
Uncertain or Neutral	16 (4.2)	9 (3.7)	7 (5.0)	1 (1.9)	15 (4.5)	13 (4.7)	0 (0.0)	0 (0.0)	2 (3.6)	1 (2.5)
Important	68 (17.7)	45 (18.5)	23 (16.3)	8 (15.1)	60 (18.1)	45 (16.2)	2 (66.7)	1 (14.3)	13 (23.2)	7 (17.5)
Very Important	267 (69.5)	174 (71.6)	93 (66.0)	37 (69.8)	230 (69.5)	197 (70.9)	1 (33.3)	5 (71.4)	35 (62.5)	29 (72.5)

AAPI = Asian American/ Pacific Islander

Table 31. Survey Question 31: Reasons for coming to Settegast for this health care visit-- The clinic is close to the patient's former home.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	112 (29.2)	67 (27.6)	45 (31.9)	20 (37.7)	92 (27.8)	68 (24.5)	0 (0.0)	1 (14.3)	26 (46.4)	17 (42.5)
Very Unimportant	13 (3.4)	8 (3.3)	5 (3.5)	1 (1.9)	12 (3.6)	8 (2.9)	1 (33.3)	0 (0.0)	3 (5.4)	1 (2.5)
Unimportant	29 (7.6)	19 (7.8)	10 (7.1)	2 (3.8)	27 (8.2)	22 (7.9)	1 (33.3)	0 (0.0)	4 (7.1)	2 (5.0)
Uncertain or Neutral	26 (6.8)	15 (6.2)	11 (7.8)	4 (7.5)	22 (6.6)	21 (7.6)	0 (0.0)	0 (0.0)	2 (3.6)	3 (7.5)
Important	61 (15.9)	39 (16.0)	22 (15.6)	6 (11.3)	55 (16.6)	49 (17.6)	0 (0.0)	0 (0.0)	5 (8.9)	7 (17.5)
Very Important	143 (37.2)	95 (39.1)	48 (34.0)	20 (37.7)	123 (37.2)	110 (39.6)	1 (33.3)	6 (85.7)	16 (28.6)	10 (25.0)

AAPI = Asian American/ Pacific Islander

Table 32. Survey Question 32: Reasons for coming to Settegast for this health care visit-- They speak the patient's language.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	23 (6.0)	16 (6.6)	7 (5.0)	5 (9.4)	18 (5.4)	12 (4.3)	0 (0.0)	0 (0.0)	4 (7.1)	7 (17.5)
Very Unimportant	11 (2.9)	5 (2.1)	6 (4.3)	1 (1.9)	10 (3.0)	8 (2.9)	1 (33.3)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	8 (2.1)	4 (1.6)	4 (2.8)	3 (5.7)	5 (1.5)	5 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	3 (7.5)
Uncertain or Neutral	7 (1.8)	2 (0.8)	5 (3.5)	1 (1.9)	6 (1.8)	6 (2.2)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
Important	65 (16.9)	39 (16.0)	26 (18.4)	7 (13.2)	58 (17.5)	46 (16.5)	1 (33.3)	0 (0.0)	12 (21.4)	6 (15.0)
Very Important	270 (70.3)	177 (72.8)	93 (66.0)	36 (67.9)	234 (70.7)	201 (72.3)	1 (33.3)	7 (100.0)	37 (66.1)	24 (60.0)

AAPI = Asian American/ Pacific Islander

Table 33. Survey Question 33: Reasons for coming to Settegast for this health care visit-- The clinic is close to my or the patient's work.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	192 (50.0)	129 (53.1)	63 (44.7)	30 (56.6)	162 (48.9)	133 (47.8)	1 (33.3)	4 (57.1)	33 (58.9)	21 (52.5)
Very Unimportant	21 (5.5)	10 (4.1)	11 (7.8)	1 (1.9)	20 (6.0)	15 (5.4)	1 (33.3)	0 (0.0)	5 (8.9)	0 (0.0)
Unimportant	32 (8.3)	17 (7.0)	15 (10.6)	3 (5.7)	29 (8.8)	23 (8.3)	1 (33.3)	0 (0.0)	4 (7.1)	4 (10.0)
Uncertain or Neutral	29 (7.6)	15 (6.2)	14 (9.9)	4 (7.6)	25 (7.6)	22 (7.9)	0 (0.0)	0 (0.0)	3 (5.4)	4 (10.0)
Important	47 (12.2)	31 (12.8)	16 (11.3)	7 (13.2)	40 (12.1)	36 (12.9)	0 (0.0)	0 (0.0)	6 (10.7)	5 (12.5)
Very Important	63 (16.4)	41 (16.9)	22 (15.6)	8 (15.1)	55 (16.6)	49 (17.6)	0 (0.0)	3 (42.9)	5 (8.9)	6 (15)

AAPI = Asian American/ Pacific Islander

Table 34. Survey Question 34: Reasons for coming to Settegast for this health care visit-- I/ the patient likes the clinic staff.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	20 (5.2)	12 (4.9)	8 (5.7)	5 (9.4)	15 (4.5)	13 (4.7)	0 (0.0)	0 (0.0)	4 (7.1)	3 (7.5)
Very Unimportant	12 (3.1)	6 (2.5)	6 (4.3)	0 (0.0)	12 (3.6)	9 (3.2)	1 (33.3)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	8 (2.1)	6 (2.5)	2 (1.4)	0 (0.0)	8 (2.4)	6 (2.2)	0 (0.0)	1 (14.3)	1 (1.8)	0 (0.0)
Uncertain or Neutral	26 (6.8)	17 (7.0)	9 (6.4)	4 (7.5)	22 (6.6)	16 (5.8)	1 (33.3)	0 (0.0)	7 (12.5)	2 (5.0)
Important	89 (23.2)	57 (23.5)	32 (22.7)	12 (22.6)	77 (23.3)	64 (23.0)	0 (0.0)	0 (0.0)	13 (23.2)	12 (30.0)
Very Important	229 (59.6)	145 (59.7)	84 (59.6)	32 (60.4)	197 (59.5)	170 (61.2)	1 (33.3)	6 (85.7)	29 (51.8)	23 (57.5)

AAPI = Asian American/ Pacific Islander

Table 35. Survey Question 35: Reasons for coming to Settegast for this health care visit-- This is where my insurance/ HCHD told me/ the patient to come.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	75 (19.5)	41 (16.9)	34 (24.1)	10 (18.9)	65 (19.6)	55 (19.8)	0 (0.0)	1 (14.3)	10 (17.9)	9 (22.5)
Very Unimportant	14 (3.6)	7 (2.9)	7 (5.0)	3 (5.7)	11 (3.3)	9 (3.2)	0 (0.0)	0 (0.0)	3 (5.4)	2 (5.0)
Unimportant	23 (6.0)	15 (6.2)	8 (5.7)	1 (1.9)	22 (6.6)	21 (7.6)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)
Uncertain or Neutral	29 (7.6)	13 (5.3)	16 (11.3)	5 (9.4)	24 (7.3)	18 (6.5)	1 (33.3)	1 (14.3)	5 (8.9)	4 (10.0)
Important	63 (16.4)	46 (18.9)	17 (12.1)	8 (15.1)	55 (16.6)	49 (17.6)	1 (33.3)	0 (0.0)	7 (12.5)	6 (15.0)
Very Important	180 (46.9)	121 (49.8)	59 (41.8)	26 (49.1)	154 (46.5)	126 (45.3)	1 (33.3)	5 (71.4)	30 (53.6)	18 (45.0)

AAPI = Asian American/ Pacific Islander

Table 36. Survey Question 36: Reasons for choosing an ideal health care provider-- The patient likes the doctor.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	16 (4.2)	9 (3.7)	7 (5.0)	6 (11.3)	10 (3.0)	10 (3.6)	0 (0.0)	1 (14.3)	2 (3.6)	3 (7.5)
Very Unimportant	8 (2.1)	2 (0.8)	6 (4.3)	1 (1.9)	7 (2.1)	5 (1.8)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Unimportant	5 (1.3)	4 (1.6)	1 (0.7)	1 (1.9)	4 (1.2)	4 (1.4)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
Uncertain or Neutral	14 (3.6)	10 (4.1)	4 (2.8)	1 (1.9)	13 (3.9)	11 (4.0)	0 (0.0)	0 (0.0)	1 (1.8)	2 (5.0)
Important	53 (13.8)	34 (14.0)	19 (13.5)	3 (5.7)	50 (15.1)	39 (14.0)	2 (66.7)	1 (14.3)	8 (14.3)	3 (7.5)
Very Important	288 (75.0)	184 (75.7)	104 (73.8)	41 (77.4)	247 (74.6)	209 (75.2)	1 (33.3)	5 (71.4)	41 (73.2)	32 (80.0)

AAPI = Asian American/ Pacific Islander

Table 37. Survey Question 37: Reasons for choosing an ideal health care provider-- The clinic is close to my or the patient's work.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	142 (37.0)	96 (39.5)	46 (32.6)	16 (30.2)	126 (38.1)	100 (36.0)	1 (33.3)	4 (57.1)	22 (39.3)	15 (37.5)
Very Unimportant	16 (4.2)	9 (3.7)	7 (5.0)	2 (3.8)	14 (4.2)	10 (3.6)	1 (33.3)	0 (0.0)	3 (5.4)	2 (5.0)
Unimportant	34 (8.9)	20 (8.2)	14 (9.9)	3 (5.7)	31 (9.4)	24 (8.6)	1 (33.3)	0 (0.0)	6 (10.7)	3 (7.5)
Uncertain or Neutral	40 (10.4)	22 (9.1)	18 (12.8)	8 (15.1)	32 (9.7)	29 (10.4)	0 (0.0)	0 (0.0)	5 (8.9)	6 (15.0)
Important	47 (12.2)	31 (12.8)	16 (11.3)	5 (9.4)	42 (12.7)	38 (13.7)	0 (0.0)	0 (0.0)	6 (10.7)	3 (7.5)
Very Important	105 (27.3)	65 (26.7)	40 (28.4)	19 (35.8)	86 (26.0)	77 (27.7)	0 (0.0)	3 (42.9)	14 (25.0)	11 (27.5)

AAPI = Asian American/ Pacific Islander

Table 38. Survey Question 38: Reasons for choosing an ideal health care provider-- The clinic will see the patient if they are uninsured.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	47 (12.2)	38 (15.6)	9 (6.4)	5 (9.4)	42 (12.7)	39 (14.0)	1 (33.3)	0 (0.0)	4 (7.1)	3 (7.5)
Very Unimportant	11 (2.9)	4 (1.6)	7 (5.0)	2 (3.8)	9 (2.7)	8 (2.9)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Unimportant	7 (1.8)	3 (1.2)	4 (2.8)	0 (0.0)	7 (2.1)	7 (2.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Uncertain or Neutral	18 (4.7)	12 (4.9)	6 (4.3)	0 (0.0)	18 (5.4)	16 (5.8)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)
Important	60 (15.6)	41 (16.9)	19 (13.5)	6 (11.3)	54 (16.3)	45 (16.2)	0 (0.0)	0 (0.0)	10 (17.9)	5 (12.5)
Very Important	241 (62.8)	145 (59.7)	96 (68.1)	40 (75.5)	201 (60.7)	163 (58.6)	2 (66.7)	7 (100.0)	38 (67.9)	31 (77.5)

AAPI = Asian American/ Pacific Islander

Table 39. Survey Question 39: Reasons for choosing an ideal health care provider-- The clinic is on my or the patient's commute/ bus line.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	70 (18.2)	54 (22.2)	16 (11.3)	16 (30.2)	54 (16.3)	37 (13.3)	1 (33.3)	3 (42.9)	16 (28.6)	13 (32.5)
Very Unimportant	12 (3.1)	6 (2.5)	6 (4.3)	2 (3.8)	10 (3.0)	8 (2.9)	0 (0.0)	0 (0.0)	4 (7.1)	0 (0.0)
Unimportant	16 (4.2)	11 (4.5)	5 (3.5)	2 (3.8)	14 (4.2)	10 (3.6)	0 (0.0)	0 (0.0)	3 (5.4)	3 (7.5)
Uncertain or Neutral	23 (6.0)	14 (5.8)	9 (6.4)	4 (7.5)	19 (5.7)	16 (5.8)	1 (33.3)	0 (0.0)	2 (3.6)	4 (10.0)
Important	60 (15.6)	40 (16.5)	20 (14.2)	9 (17.0)	51 (15.4)	43 (15.5)	0 (0.0)	0 (0.0)	8 (14.3)	9 (22.5)
Very Important	203 (52.9)	118 (48.6)	85 (60.3)	20 (37.7)	183 (55.3)	164 (59.0)	1 (33.3)	4 (57.1)	23 (41.1)	11 (27.5)

AAPI = Asian American/ Pacific Islander

Table 40. Survey Question 40: Reasons for choosing an ideal health care provider-- The clinic takes the patient's insurance.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	58 (15.1)	39 (16.0)	19 (13.5)	7 (13.2)	51 (15.4)	43 (15.5)	1 (33.3)	1 (14.3)	8 (14.3)	5 (12.5)
Very Unimportant	6 (1.6)	3 (1.2)	3 (2.1)	0 (0.0)	6 (1.8)	5 (1.8)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
Unimportant	8 (2.1)	5 (2.1)	3 (2.1)	0 (0.0)	8 (2.4)	7 (2.5)	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)
Uncertain or Neutral	10 (2.6)	3 (1.2)	7 (5.0)	2 (3.8)	8 (2.4)	7 (2.5)	0 (0.0)	0 (0.0)	1 (1.8)	2 (5.0)
Important	55 (14.3)	36 (14.8)	19 (13.5)	7 (13.2)	48 (14.5)	44 (15.8)	0 (0.0)	0 (0.0)	5 (8.9)	6 (15.0)
Very Important	247 (64.3)	157 (64.6)	90 (63.8)	37 (69.8)	210 (63.4)	172 (61.9)	1 (33.3)	6 (85.7)	41 (73.2)	27 (67.5)

AAPI = Asian American/ Pacific Islander

Table 41. Survey Question 41: Reasons for choosing an ideal health care provider-- I/ the patient likes the clinic staff.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	15 (3.9)	9 (3.7)	6 (4.3)	4 (7.5)	11 (3.3)	10 (3.6)	0 (0.0)	0 (0.0)	1 (1.8)	4 (10.0)
Very Unimportant	7 (1.8)	3 (1.2)	4 (2.8)	0 (0.0)	7 (2.1)	4 (1.4)	1 (33.3)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	6 (1.6)	5 (2.1)	1 (0.7)	1 (1.9)	5 (1.5)	4 (1.4)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Uncertain or Neutral	22 (5.7)	17 (7.0)	5 (3.5)	2 (3.8)	20 (6.0)	16 (5.8)	1 (33.3)	1 (14.3)	3 (5.4)	1 (2.5)
Important	73 (19.0)	46 (18.9)	27 (19.1)	11 (20.8)	62 (18.7)	56 (20.1)	0 (0.0)	0 (0.0)	10 (17.9)	7 (17.5)
Very Important	261 (68.0)	163 (67.1)	98 (69.5)	35 (66.0)	226 (68.3)	188 (67.6)	1 (33.3)	6 (85.7)	38 (67.9)	28 (70.0)

AAPI = Asian American/ Pacific Islander

Table 42. Survey Question 42: Reasons for choosing an ideal health care provider-- The clinic is close to my or the patient's school/ child care provider.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	186 (48.4)	117 (48.1)	69 (48.9)	26 (49.1)	160 (48.3)	125 (45.0)	2 (66.7)	6 (85.7)	34 (60.7)	19 (47.5)
Very Unimportant	9 (2.3)	4 (1.6)	5 (3.5)	1 (1.9)	8 (2.4)	7 (2.5)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	37 (9.6)	24 (9.9)	13 (9.2)	6 (11.3)	31 (9.4)	24 (8.6)	1 (33.3)	0 (0.0)	6 (10.7)	6 (15.0)
Uncertain or Neutral	30 (7.8)	18 (7.4)	12 (8.5)	4 (7.5)	26 (7.9)	25 (9.0)	0 (0.0)	0 (0.0)	1 (1.8)	4 (10.0)
Important	44 (11.5)	25 (10.3)	19 (13.5)	6 (11.3)	38 (11.5)	33 (11.9)	0 (0.0)	0 (0.0)	5 (8.9)	6 (15.0)
Very Important	78 (20.3)	55 (22.6)	23 (16.3)	10 (18.9)	68 (20.5)	64 (23.0)	0 (0.0)	1 (14.3)	8 (14.3)	5 (12.5)

AAPI = Asian American/ Pacific Islander

Table 43. Survey Question 43: Reasons for choosing an ideal health care provider-- The clinic offers free or low-cost doctor's visits.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	20 (5.2)	14 (5.8)	6 (4.3)	3 (5.7)	17 (5.1)	15 (5.4)	0 (0.0)	0 (0.0)	4 (7.1)	1 (2.5)
Very Unimportant	8 (2.1)	4 (1.6)	4 (2.8)	1 (1.9)	7 (2.1)	6 (2.2)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	7 (1.8)	4 (1.6)	3 (2.1)	1 (1.9)	6 (1.8)	5 (1.8)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)
Uncertain or Neutral	11 (2.9)	4 (1.6)	7 (5.0)	1 (1.9)	10 (3.0)	8 (2.9)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Important	67 (17.4)	48 (19.8)	19 (13.5)	8 (15.1)	59 (17.8)	49 (17.6)	1 (33.3)	0 (0.0)	8 (14.3)	9 (22.5)
Very Important	271 (70.6)	169 (69.5)	102 (72.3)	39 (73.6)	232 (70.1)	195 (70.1)	2 (66.7)	7 (100.0)	38 (67.9)	29 (72.5)

AAPI = Asian American/ Pacific Islander

Table 44. Survey Question 44: Reasons for choosing an ideal health care provider-- The insurance company/ HCHD tells me/ the patient where to go.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	72 (18.8)	37 (15.2)	35 (24.8)	7 (13.2)	65 (19.6)	54 (19.4)	1 (33.3)	0 (0.0)	13 (23.2)	4 (10.0)
Very Unimportant	15 (3.9)	10 (4.1)	5 (3.5)	3 (5.7)	12 (3.6)	10 (3.6)	0 (0.0)	0 (0.0)	1 (1.8)	4 (10.0)
Unimportant	28 (7.3)	19 (7.8)	9 (6.4)	1 (1.9)	27 (8.2)	21 (7.6)	0 (0.0)	0 (0.0)	5 (8.9)	2 (5.0)
Uncertain or Neutral	49 (12.8)	29 (11.9)	20 (14.2)	5 (9.4)	44 (13.3)	38 (13.7)	0 (0.0)	1 (14.3)	6 (10.7)	4 (10.0)
Important	58 (15.1)	37 (15.2)	21 (14.9)	5 (9.4)	53 (16.0)	46 (16.5)	2 (66.7)	1 (14.3)	4 (7.1)	5 (12.5)
Very Important	162 (42.2)	111 (45.7)	51 (36.2)	32 (60.4)	130 (39.3)	109 (39.2)	0 (0.0)	5 (71.4)	27 (48.2)	21 (52.5)

AAPI = Asian American/ Pacific Islander

Table 45. Survey Question 45: Reasons for choosing an ideal health care provider-- They can see the patient quickly.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	15 (3.9)	9 (3.7)	6 (4.3)	1 (1.9)	14 (4.2)	11 (4.0)	0 (0.0)	0 (0.0)	2 (3.6)	2 (5.0)
Very Unimportant	7 (1.8)	3 (1.2)	4 (2.8)	1 (1.9)	6 (1.8)	5 (1.8)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	6 (1.6)	5 (2.1)	1 (0.7)	1 (1.9)	5 (1.5)	4 (1.4)	1 (33.3)	0 (0.0)	1 (1.8)	0 (0.0)
Uncertain or Neutral	30 (7.8)	19 (7.8)	11 (7.8)	4 (7.5)	26 (7.9)	18 (6.5)	2 (66.7)	0 (0.0)	6 (10.7)	4 (10.0)
Important	86 (22.4)	57 (23.5)	29 (20.6)	11 (20.8)	75 (22.7)	65 (23.4)	0 (0.0)	3 (42.9)	9 (16.1)	9 (22.5)
Very Important	240 (62.5)	150 (61.7)	90 (63.8)	35 (66.0)	205 (61.9)	175 (62.9)	0 (0.0)	4 (57.1)	36 (64.3)	25 (62.5)

AAPI = Asian American/ Pacific Islander

Table 46. Survey Question 46: Reasons for choosing an ideal health care provider-- They can see the patient when it is convenient for me or the patient.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	16 (4.2)	14 (5.8)	2 (1.4)	1 (1.9)	15 (4.5)	13 (4.7)	0 (0.0)	0 (0.0)	1 (1.8)	2 (5.0)
Very Unimportant	13 (3.4)	7 (2.9)	6 (4.3)	2 (3.8)	11 (3.3)	9 (3.2)	0 (0.0)	0 (0.0)	4 (7.1)	0 (0.0)
Unimportant	11 (2.9)	5 (2.1)	6 (4.3)	2 (3.8)	9 (2.7)	8 (2.9)	0 (0.0)	0 (0.0)	3 (5.4)	0 (0.0)
Uncertain or Neutral	34 (8.9)	25 (10.3)	9 (6.4)	3 (5.7)	31 (9.4)	25 (9.0)	2 (66.7)	0 (0.0)	3 (5.4)	4 (10.0)
Important	86 (22.4)	57 (23.5)	29 (20.6)	12 (22.6)	74 (22.4)	63 (22.7)	0 (0.0)	3 (42.9)	10 (17.9)	10 (25.0)
Very Important	224 (58.3)	135 (55.6)	89 (63.1)	33 (62.3)	191 (57.7)	160 (57.6)	1 (33.3)	4 (57.1)	35 (62.5)	24 (60.0)

AAPI = Asian American/ Pacific Islander

Table 47. Survey Question 47: Reasons for choosing an ideal health care provider-- The clinic is close to the patient's home.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	28 (7.3)	19 (7.8)	9 (6.4)	5 (9.4)	23 (6.9)	21 (7.6)	0 (0.0)	0 (0.0)	4 (7.1)	3 (7.5)
Very Unimportant	9 (2.3)	4 (1.6)	5 (3.5)	3 (5.7)	6 (1.8)	3 (1.1)	0 (0.0)	0 (0.0)	4 (7.1)	2 (5.0)
Unimportant	18 (4.7)	9 (3.7)	9 (6.4)	2 (3.8)	16 (4.8)	11 (4.0)	1 (33.3)	0 (0.0)	4 (7.1)	2 (5.0)
Uncertain or Neutral	22 (5.7)	10 (4.1)	12 (8.5)	4 (7.5)	18 (5.4)	15 (5.4)	1 (33.3)	0 (0.0)	1 (1.8)	5 (12.5)
Important	79 (20.6)	53 (21.8)	26 (18.4)	7 (13.2)	72 (21.8)	58 (20.9)	0 (0.0)	1 (14.3)	10 (17.9)	10 (25.0)
Very Important	228 (59.4)	148 (60.9)	80 (56.7)	32 (60.4)	196 (59.2)	170 (61.2)	1 (33.3)	6 (85.7)	33 (58.9)	18 (45.0)

AAPI = Asian American/ Pacific Islander

Table 48. Survey Question 48: Reasons for choosing an ideal health care provider-- The clinic was recommended by a friend or relative.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	105 (27.3)	71 (29.2)	34 (24.1)	16 (30.2)	89 (26.9)	69 (24.8)	1 (33.3)	3 (42.9)	19 (33.9)	13 (32.5)
Very Unimportant	12 (3.1)	7 (2.9)	5 (3.5)	0 (0.0)	12 (3.6)	10 (3.6)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	24 (6.3)	7 (2.9)	17 (12.1)	2 (3.8)	22 (6.6)	17 (6.1)	2 (66.7)	0 (0.0)	4 (7.1)	1 (2.5)
Uncertain or Neutral	25 (6.5)	15 (6.2)	10 (7.1)	1 (1.9)	24 (7.3)	19 (6.8)	0 (0.0)	0 (0.0)	5 (8.9)	1 (2.5)
Important	78 (20.3)	52 (21.4)	26 (18.4)	14 (26.4)	64 (19.3)	56 (20.1)	0 (0.0)	0 (0.0)	9 (16.1)	13 (32.5)
Very Important	140 (36.5)	91 (37.4)	49 (34.8)	20 (37.7)	120 (36.3)	107 (38.5)	0 (0.0)	4 (57.1)	17 (30.4)	12 (30.0)

AAPI = Asian American/ Pacific Islander

Table 49. Survey Question 49: Reasons for choosing an ideal health care provider-- They speak the patient's language.

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	20 (5.2)	13 (5.3)	7 (5.0)	6 (11.3)	14 (4.2)	11 (4.0)	0 (0.0)	0 (0.0)	2 (3.6)	7 (17.5)
Very Unimportant	5 (1.3)	1 (0.4)	4 (2.8)	1 (1.9)	4 (1.2)	3 (1.1)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	9 (2.3)	6 (2.5)	3 (2.1)	2 (3.8)	7 (2.1)	5 (1.8)	1 (33.3)	0 (0.0)	1 (1.8)	2 (5.0)
Uncertain or Neutral	11 (2.9)	5 (2.1)	6 (4.3)	3 (5.7)	8 (2.4)	7 (2.5)	0 (0.0)	0 (0.0)	4 (7.1)	0 (0.0)
Important	70 (18.2)	44 (18.1)	26 (18.4)	9 (17.0)	61 (18.4)	50 (18.0)	1 (33.3)	1 (14.3)	10 (17.9)	8 (20.0)
Very Important	269 (70.1)	174 (71.6)	95 (67.4)	32 (60.4)	237 (71.6)	202 (72.7)	1 (33.3)	6 (85.7)	37 (66.1)	23 (57.5)

AAPI = Asian American/ Pacific Islander

Table 50. Survey Question 50: Reasons for choosing an ideal health care provider-- They can meet all of the patient's health needs.

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Not Applicable	5 (1.3)	3 (1.2)	2 (1.4)	0 (0.0)	5 (1.5)	5 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Very Unimportant	9 (2.3)	2 (0.8)	7 (5.0)	1 (1.9)	8 (2.4)	7 (2.5)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Unimportant	4 (1.0)	3 (1.2)	1 (0.7)	1 (1.9)	3 (0.9)	2 (0.7)	1 (33.3)	0 (0.0)	0 (0.0)	1 (2.5)
Uncertain or Neutral	9 (2.3)	5 (2.1)	4 (2.8)	0 (0.0)	9 (2.7)	8 (2.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.5)
Important	61 (15.9)	43 (17.7)	18 (12.8)	14 (26.4)	47 (14.2)	40 (14.4)	1 (33.3)	0 (0.0)	10 (17.9)	10 (25.0)
Very Important	296 (77.1)	187 (77.0)	109 (77.3)	37 (69.8)	259 (78.2)	216 (77.7)	1 (33.3)	7 (100.0)	44 (78.6)	28 (70.0)

AAPI = Asian American/ Pacific Islander

Table 51. Survey Question 51: Does the patient live in one place or split time between residences?

		Gender		**Ethnicity**		**Race**				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
One Location	374 (97.4)	240 (98.8)	134 (95.0)	53 (100.0)	321 (97.0)	269 (96.8)	3 (100.0)	7 (100.0)	55 (98.2)	40 (100.0)
More Than One Location	10 (2.6)	3 (1.2)	7 (5.0)	0 (0.0)	10 (3.0)	9 (3.2)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 52. Survey Question 52: How long has the patient lived at the current primary residence?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Less than one year	64 (16.7)	16 (6.6)	48 (34.0)	6 (11.3)	58 (17.5)	42 (15.1)	0 (0.0)	0 (0.0)	18 (32.1)	4 (10.0)
One year	43 (11.2)	24 (9.9)	19 (13.5)	5 (9.4)	38 (11.5)	31 (11.2)	1 (33.3)	2 (28.6)	7 (12.5)	2 (5.0)
Two years	35 (9.1)	21 (8.6)	14 (9.9)	4 (7.5)	31 (9.4)	24 (8.6)	0 (0.0)	3 (42.9)	5 (8.9)	3 (7.5)
More than two years	242 (63.0)	182 (74.9)	60 (42.6)	38 (71.7)	204 (61.6)	181 (65.1)	2 (66.7)	2 (28.6)	26 (46.4)	31 (77.5)

AAPI = Asian American/ Pacific Islander

Table 53. Survey Question 53: Does the patient work in one place or go to different locations?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
One location	99 (25.8)	64 (26.3)	35 (24.8)	12 (22.6)	87 (26.3)	78 (28.1)	0 (0.0)	2 (28.6)	13 (23.2)	6 (15.0)
Different, set locations	16 (4.2)	9 (3.7)	7 (5.0)	7 (13.2)	9 (2.7)	9 (3.2)	0 (0.0)	0 (0.0)	1 (1.8)	6 (15.0)
Different, unknown locations	11 (2.9)	3 (1.2)	8 (5.7)	1 (1.9)	10 (3.0)	7 (2.5)	0 (0.0)	0 (0.0)	2 (3.6)	2 (5.0)
Does not work	258 (67.2)	167 (68.7)	91 (64.5)	33 (62.3)	225 (68.0)	184 (66.2)	3 (100.0)	5 (71.4)	40 (71.4)	26 (65.0)

AAPI = Asian American/ Pacific Islander

Table 54. Survey Question 54: Which ONE reason is the MOST important when choosing a doctor/ clinic for the patient?

		Gender		Ethnicity		Race				
	N=384	Female N=243	Male N=141	Hispanic N=53	Not Hispanic N=331	African American N=278	AAPI N=3	Native American N=7	White N=56	Other N=40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
They can see the patient quickly when I call for an appointment	97 (25.3)	58 (23.9)	39 (27.7)	7 (13.2)	90 (27.2)	78 (28.1)	1 (33.3)	3 (42.9)	8 (14.3)	7 (17.5)
The clinic is close to my/ the patient's work	5 (1.3)	3 (1.2)	2 (1.4)	1 (1.9)	4 (1.2)	4 (1.4)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
The clinic will see the patient if they are uninsured	45 (11.7)	31 (12.8)	14 (9.9)	4 (7.5)	41 (12.4)	36 (12.9)	1 (33.3)	1 (14.3)	3 (5.4)	4 (10.0)
The clinic was recommended by a friend or relative	4 (1.0)	2 (0.8)	2 (1.4)	0 (0.0)	4 (1.2)	3 (1.1)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
The clinic is close to the patient's home	46 (12.0)	32 (13.2)	14 (9.9)	11 (20.8)	35 (10.6)	33 (11.9)	0 (0.0)	0 (0.0)	9 (16.1)	4 (10.0)
I/ the patient like the doctor	40 (10.4)	25 (10.3)	15 (10.6)	6 (11.3)	34 (10.3)	28 (10.1)	0 (0.0)	1 (14.3)	4 (7.1)	7 (17.5)
The clinic is on my/ the patient's commute/ bus line	6 (1.6)	1 (0.4)	5 (3.5)	1 (1.9)	5 (1.5)	4 (1.4)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)
They speak the patient's language	3 (0.8)	0 (0.0)	3 (2.1)	1 (1.9)	2 (0.6)	1 (0.4)	0 (0.0)	0 (0.0)	1 (1.8)	1 (2.5)
The clinic is close to my/ the patient's school	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
The clinic takes the patient's insurance	13 (3.4)	10 (4.1)	3 (2.1)	2 (3.8)	11 (3.3)	9 (3.2)	0 (0.0)	0 (0.0)	1 (1.8)	3 (7.5)
They can meet all of the patient's health care needs	60 (15.6)	38 (15.6)	22 (15.6)	6 (11.3)	54 (16.3)	41 (14.7)	1 (33.3)	1 (14.3)	12 (21.4)	5 (12.5)
They can see patient when it is convenient for me or the patient	6 (1.6)	4 (1.6)	2 (1.4)	0 (0.0)	6 (1.8)	5 (1.8)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)

Table 54, cont.Survey Question 54: Which ONE reason is the MOST important when choosing a doctor/ clinic for the patient?

		Gender		Ethnicity		Race				
	N=384	Female N=243	Male N=141	Hispanic N=53	Not Hispanic N=331	African American N=278	AAPI N=3	Native American N=7	White N=56	Other N=40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
The clinic is close to my/ the patient's child care provider	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
The clinic offers free or low cost doctor's visits	28 (7.3)	22 (9.1)	6 (4.3)	10 (18.9)	18 (5.4)	16 (5.8)	0 (0.0)	1 (14.3)	6 (10.7)	5 (12.5)
My/ the patient's insurance or HCHD tells the patient where to go	12 (3.1)	5 (2.1)	7 (5.0)	3 (5.7)	9 (2.7)	5 (1.8)	0 (0.0)	0 (0.0)	5 (8.9)	2 (5.0)
I/ the patient likes the clinic staff	6 (1.6)	3 (1.2)	3 (2.1)	0 (0.0)	6 (1.8)	5 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.5)
Other	10 (2.6)	8 (3.3)	2 (1.4)	1 (1.9)	9 (2.7)	8 (2.9)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Don't know	3 (0.8)	1 (0.4)	2 (1.4)	0 (0.0)	3 (0.9)	2 (0.7)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 55. Survey Question 55: How far did the patient travel to get to the clinic today?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Less than one mile	43 (11.2)	31 (12.8)	12 (8.5)	5 (9.4)	38 (11.5)	36 (12.9)	0 (0.0)	0 (0.0)	3 (5.4)	4 (10.0)
Between one and five miles	156 (40.6)	95 (39.1)	61 (43.3)	21 (39.6)	135 (40.8)	117 (42.1)	1 (33.3)	3 (42.9)	20 (35.7)	15 (37.5)
Between five and ten miles	94 (24.5)	53 (21.8)	41 (29.1)	10 (18.9)	84 (25.4)	65 (23.4)	0 (0.0)	1 (14.3)	18 (32.1)	10 (25.0)
More than ten miles	67 (17.4)	45 (18.5)	22 (15.6)	13 (24.5)	54 (16.3)	42 (15.1)	2 (66.7)	2 (28.6)	11 (19.6)	10 (25.0)
Don’t know	24 (6.3)	19 (7.8)	5 (3.5)	4 (7.5)	20 (6.0)	18 (6.5)	0 (0.0)	1 (14.3)	4 (7.1)	1 (2.5)

AAPI = Asian American/ Pacific Islander

Table 56. Survey Question 56: How much farther would the patient have been willing to travel to get to the clinic today?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
No farther	85 (22.1)	58 (23.9)	27 (19.1)	9 (17.0)	76 (23.0)	68 (24.5)	2 (66.7)	1 (14.3)	8 (14.3)	6 (15.0)
Up to five more miles	97 (25.3)	61 (25.1)	36 (25.5)	16 (30.2)	81 (24.5)	66 (23.7)	0 (0.0)	2 (28.6)	16 (28.6)	13 (32.5)
Up to ten more miles	59 (15.4)	35 (14.4)	24 (17.0)	12 (22.6)	47 (14.2)	37 (13.3)	0 (0.0)	1 (14.3)	10 (17.9)	11 (27.5)
More than ten miles	81 (21.1)	50 (20.6)	31 (22.0)	12 (22.6)	69 (20.8)	56 (20.1)	0 (0.0)	2 (28.6)	17 (30.4)	6 (15.0)
Don’t know	62 (16.1)	39 (16.0)	23 (16.3)	4 (7.5)	58 (17.5)	51 (18.3)	1 (33.3)	1 (14.3)	5 (8.9)	4 (10.0)

AAPI = Asian American/ Pacific Islander

Table 57. Survey Question 57: How long did it take the patient to get here today?

		Gender		Ethnicity		Race				
	N= 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Less than five minutes	31 (8.1)	22 (9.1)	9 (6.4)	3 (5.7)	28 (8.5)	26 (9.4)	0 (0.0)	0 (0.0)	1 (1.8)	4 (10.0)
Between five and ten minutes	92 (24.0)	72 (29.6)	20 (14.2)	16 (30.2)	76 (23.0)	68 (24.5)	1 (33.3)	1 (14.3)	14 (25.0)	8 (20.0)
Between ten and fifteen minutes	89 (23.2)	64 (26.3)	25 (17.7)	11 (20.8)	78 (23.6)	67 (24.1)	0 (0.0)	5 (71.4)	10 (17.9)	7 (17.5)
More than fifteen minutes	163 (42.4)	80 (32.9)	83 (58.9)	22 (41.5)	141 (42.6)	111 (39.9)	2 (66.7)	1 (14.3)	29 (51.8)	20 (50.0)
Don’t know	9 (2.3)	5 (2.1)	4 (2.8)	1 (1.9)	8 (2.4)	6 (2.2)	0 (0.0)	0 (0.0)	2 (3.6)	1 (2.5)

AAPI = Asian American/ Pacific Islander

Table 58. Survey Question 58: How much longer would the patient have been willing to travel to get to the clinic today?

		Gender		Ethnicity		Race				
	N= 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
No longer	68 (17.7)	46 (18.9)	22 (15.6)	6 (11.3)	62 (18.7)	58 (20.9)	1 (33.3)	1 (14.3)	3 (5.4)	5 (12.5)
Up to five minutes longer	49 (12.8)	40 (16.5)	9 (6.4)	8 (15.1)	41 (12.4)	37 (13.3)	1 (33.3)	1 (14.3)	7 (12.5)	3 (7.5)
Up to ten minutes longer	60 (15.6)	40 (16.5)	20 (14.2)	14 (26.4)	46 (13.9)	39 (14.0)	0 (0.0)	0 (0.0)	12 (21.4)	9 (22.5)
More than ten minutes longer	153 (39.8)	83 (34.2)	70 (49.6)	22 (41.5)	131 (39.6)	100 (36.0)	1 (33.3)	4 (57.1)	28 (50.0)	20 (50.0)
Don’t know	54 (14.1)	34 (14.0)	20 (14.2)	3 (5.7)	51 (15.4)	44 (15.8)	0 (0.0)	1 (14.3)	6 (10.7)	3 (7.5)

AAPI = Asian American/ Pacific Islander

Table 59. Survey Question 59: When completing forms for the patient at the doctor's office, what address do you typically provide?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
The patient's primary residence address	341 (88.8)	222 (91.4)	119 (84.4)	49 (92.5)	292 (88.2)	244 (87.8)	3 (100.0)	7 (100.0)	49 (87.5)	38 (95.0)
A mailing address that is not the patient's primary residence	17 (4.4)	9 (3.7)	8 (5.7)	1 (1.9)	16 (4.8)	16 (5.8)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
A Post Office Box (PO Box)	4 (1.0)	3 (1.2)	1 (0.7)	0 (0.0)	4 (1.2)	4 (1.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
A billing address that is not the patient's primary residence	4 (1.0)	0 (0.0)	4 (2.8)	0 (0.0)	4 (1.2)	3 (1.1)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)
An address for another person who helps the patient pay the bills	2 (0.5)	1 (0.4)	1 (0.7)	1 (1.9)	1 (0.3)	1 (0.4)	0 (0.0)	0 (0.0)	1 (1.8)	0 (0.0)

AAPI = Asian American/ Pacific Islander

Table 59, cont.Survey Question 59: When completing forms for the patient at the doctor's office, what address do you typically provide?

		Gender		Ethnicity		Race				
	N = 384	Female N= 243	Male N= 141	Hispanic N= 53	Not Hispanic N= 331	African American N= 278	AAPI N= 3	Native American N= 7	White N= 56	Other N= 40
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
The patient's work address	1 (0.3)	1 (0.4)	0 (0.0)	0 (0.0)	1 (0.3)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
None	2 (0.5)	1 (0.4)	1 (0.7)	0 (0.0)	2 (0.6)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.5)
False address information	1 (0.3)	0 (0.0)	1 (0.7)	0 (0.0)	1 (0.3)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other	5 (1.3)	2 (0.8)	3 (2.1)	0 (0.0)	5 (1.5)	3 (1.1)	0 (0.0)	0 (0.0)	2 (3.6)	0 (0.0)
Don't know	7 (1.8)	4 (1.6)	3 (2.1)	2 (3.8)	5 (1.5)	4 (1.4)	0 (0.0)	0 (0.0)	2 (3.6)	1 (2.5)

AAPI = Asian American/ Pacific Islander

FIGURES

Figure 1. Map of the Harris County Hospital District (HCHD) Community Health Center Service Areas

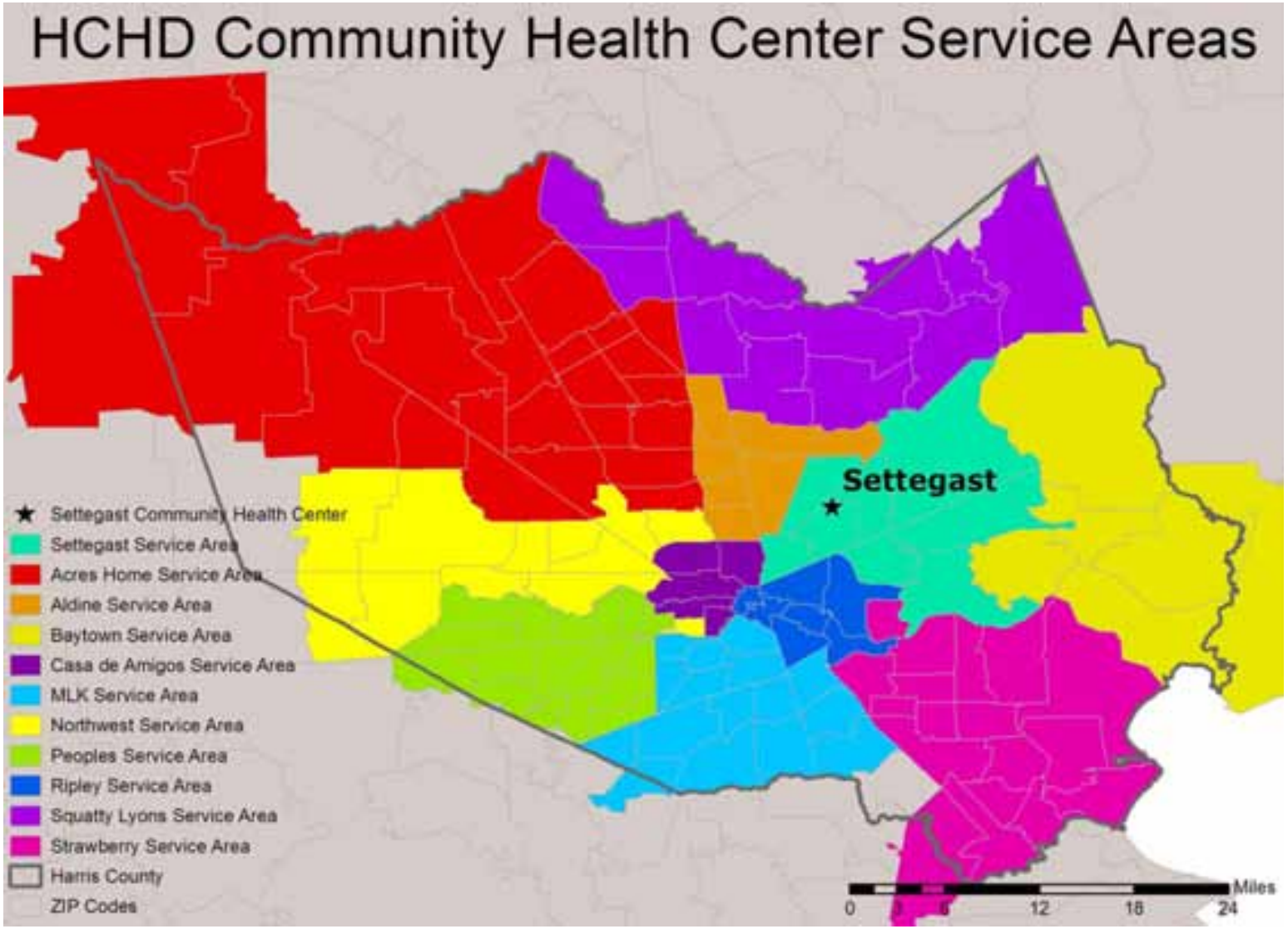


Figure 2. Representation of Activity Space Data

Figure 3. Health Center Service Area using the Griffith Commitment Index, 2004

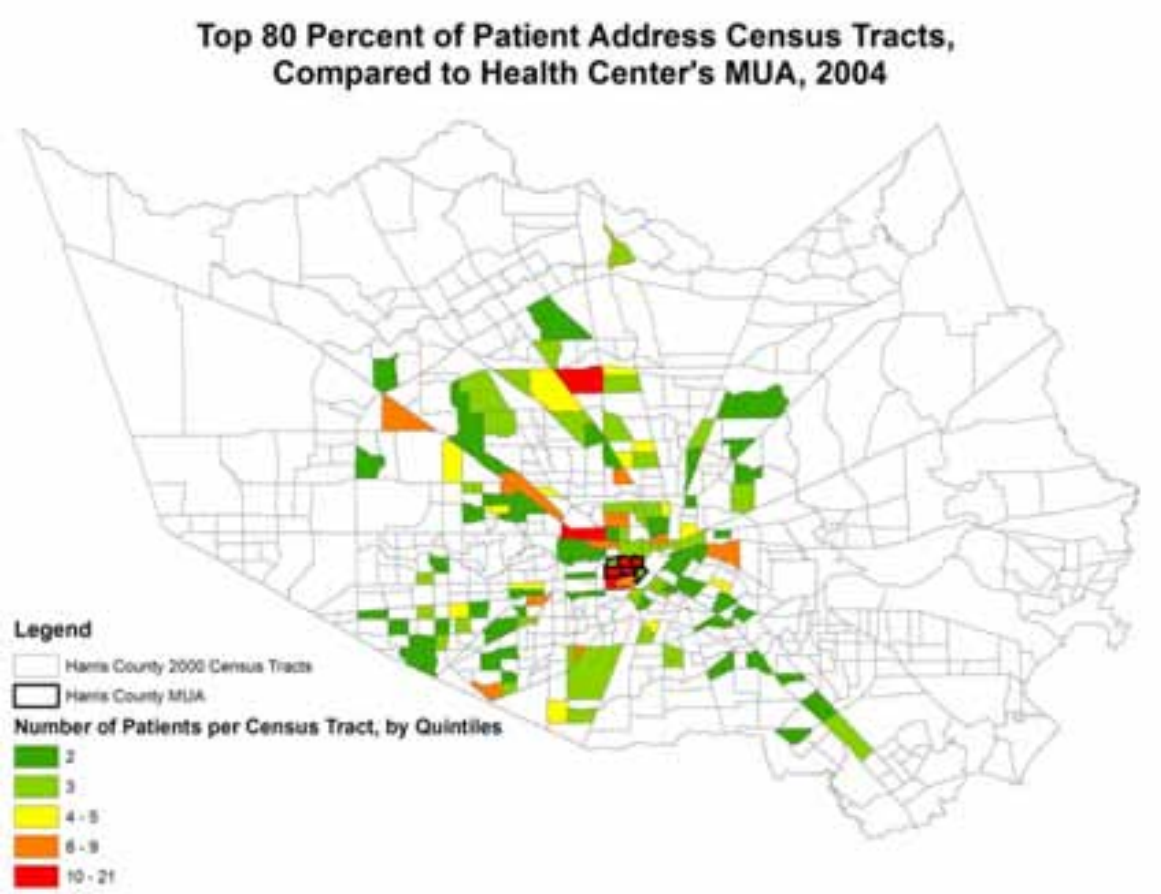


Figure 4. Map of Subjects' Home Locations

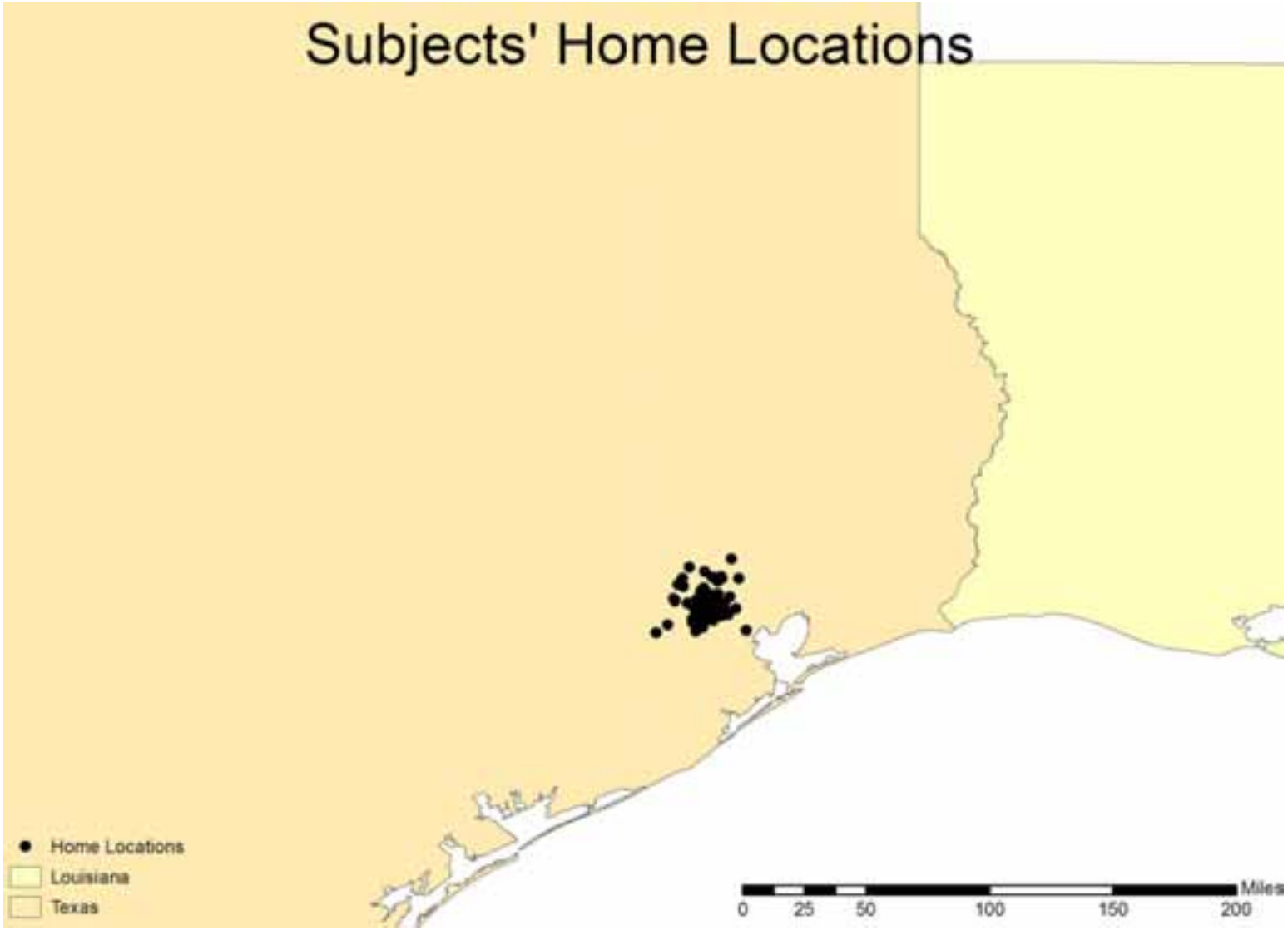


Figure 5. Map of Subjects' Activity Locations

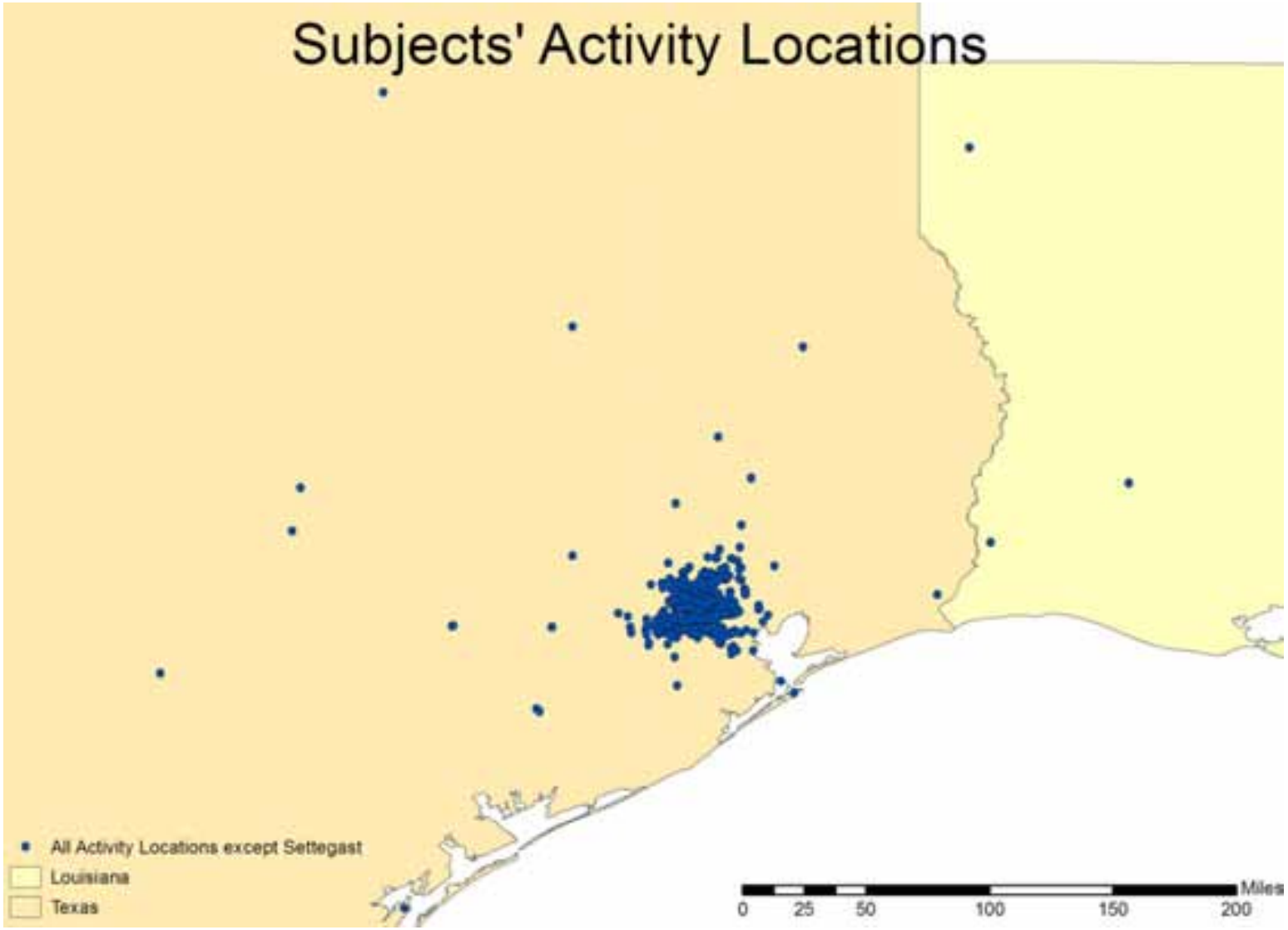


Figure 6. Map of Subjects' Activity Locations, Weighted

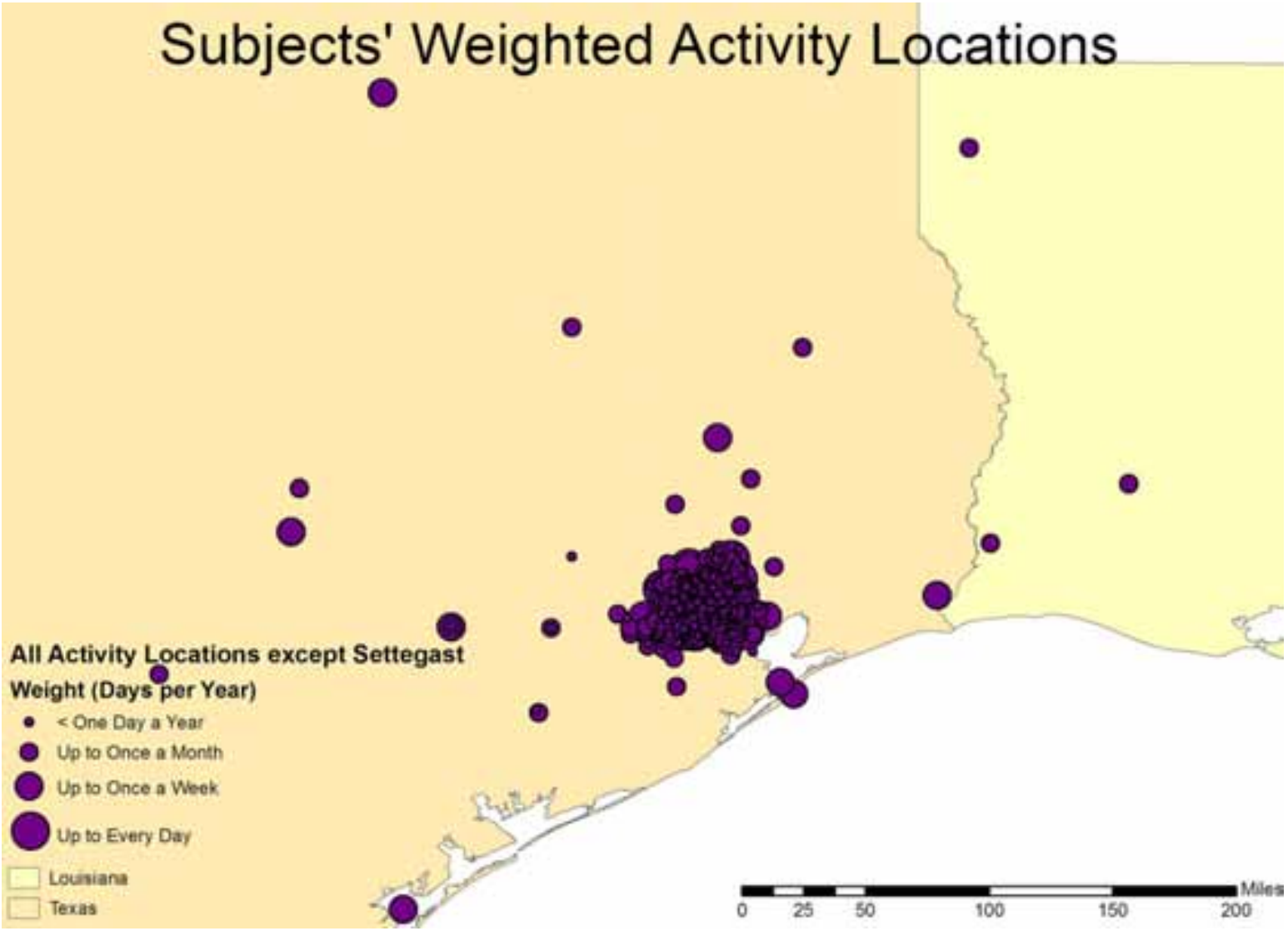


Figure 7. Map of the Service Area Calculated Using Multiple Location Time Weighted Index (MLTWI)

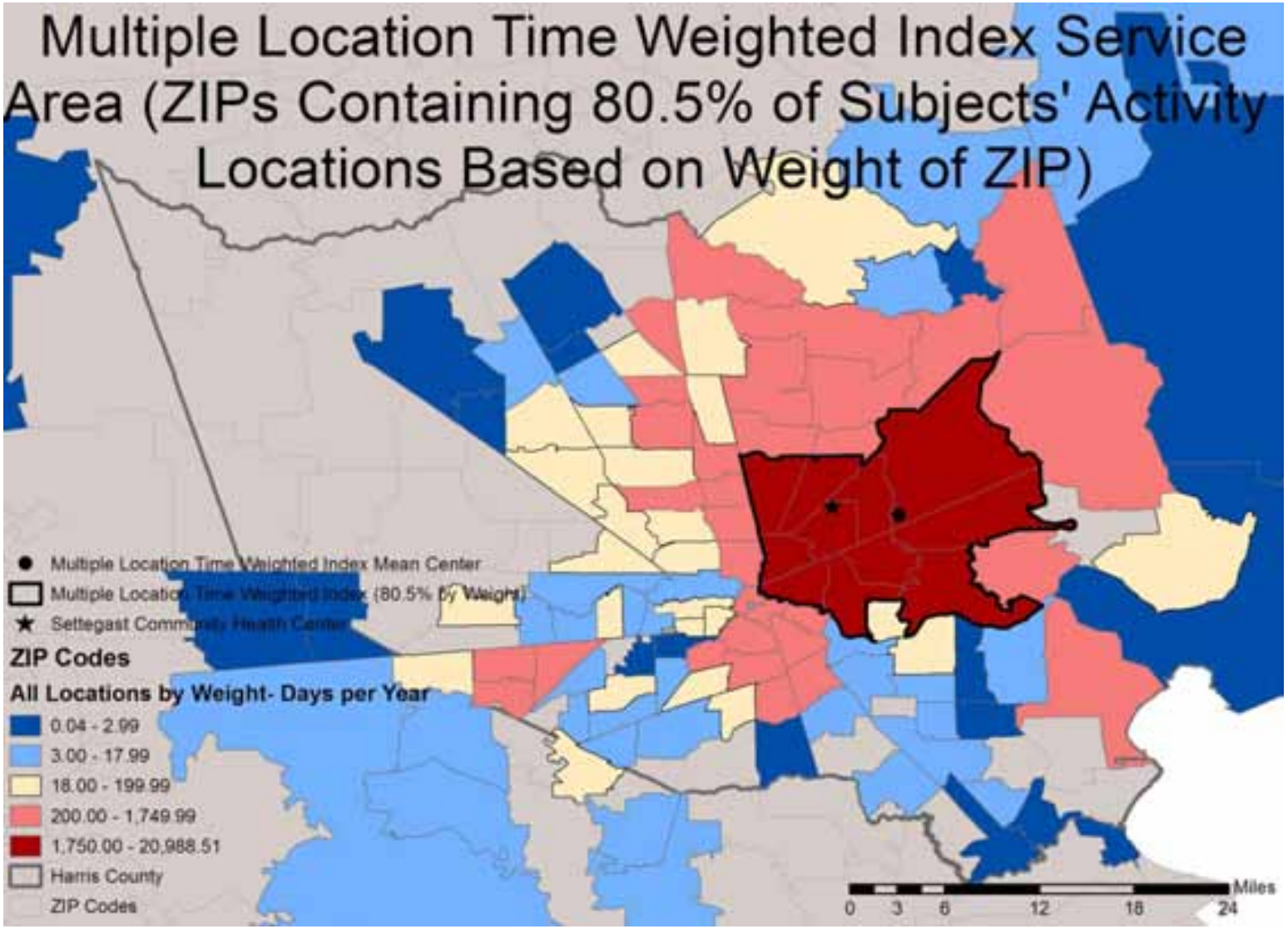


Figure 8. Map of the Comparison of MLTWI Service Area and Subjects' Activity Locations

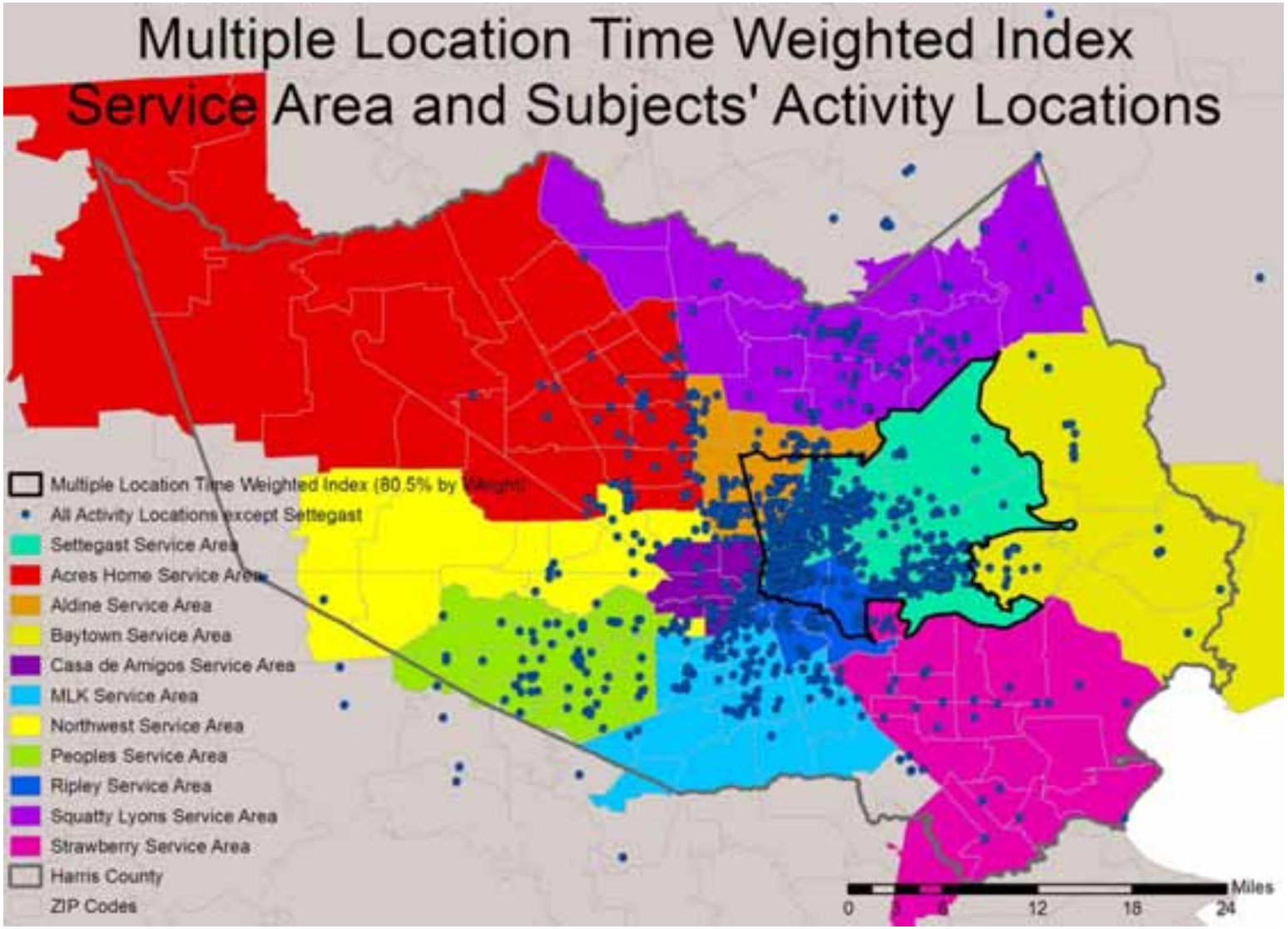


Figure 9. Map of the Comparison of MLTWI Service Area and Subjects' Activity Locations, Weighted

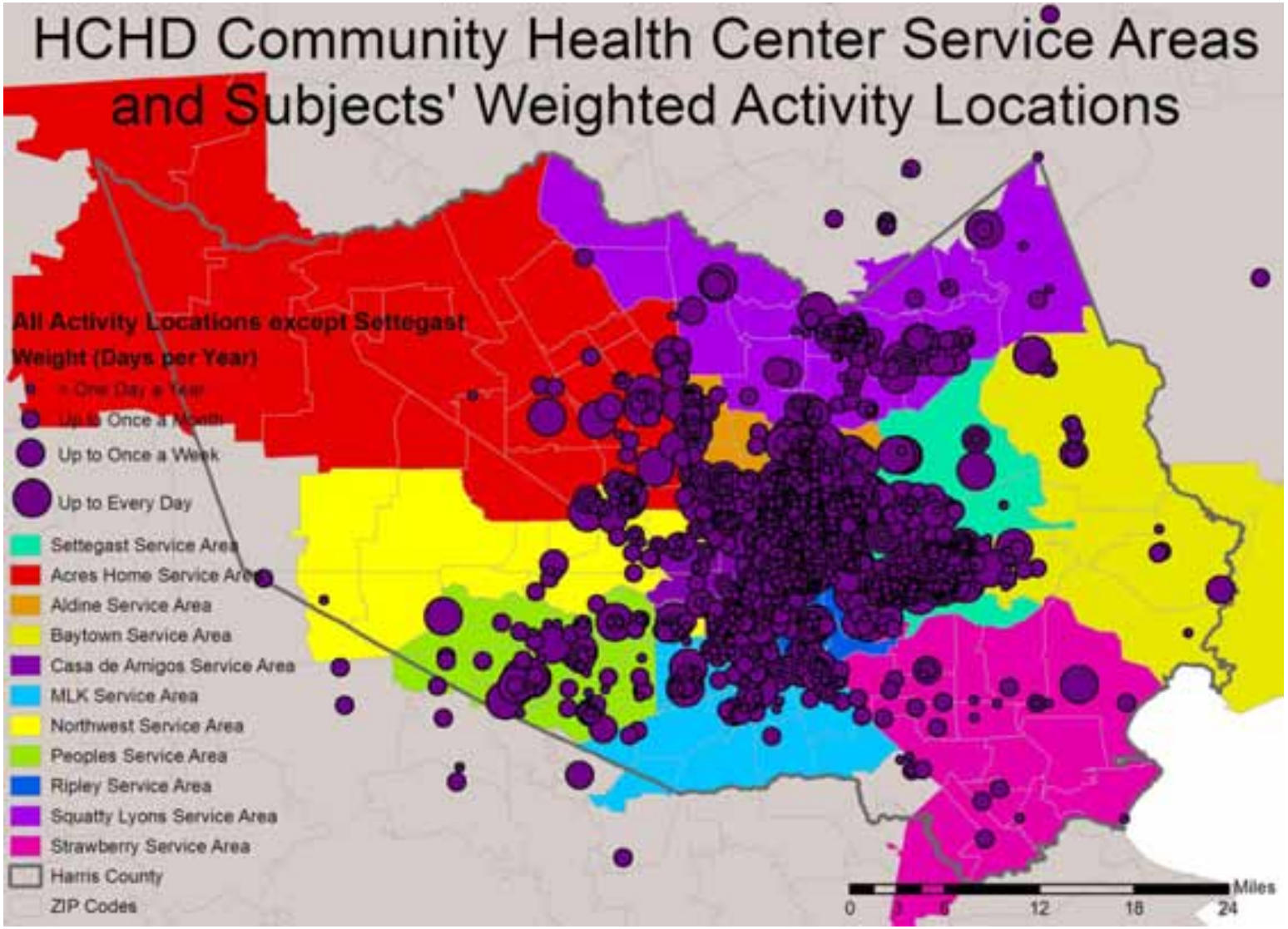


Figure 10.Map of the Service Area Calculated Using Griffith Commitment Index (GCI)

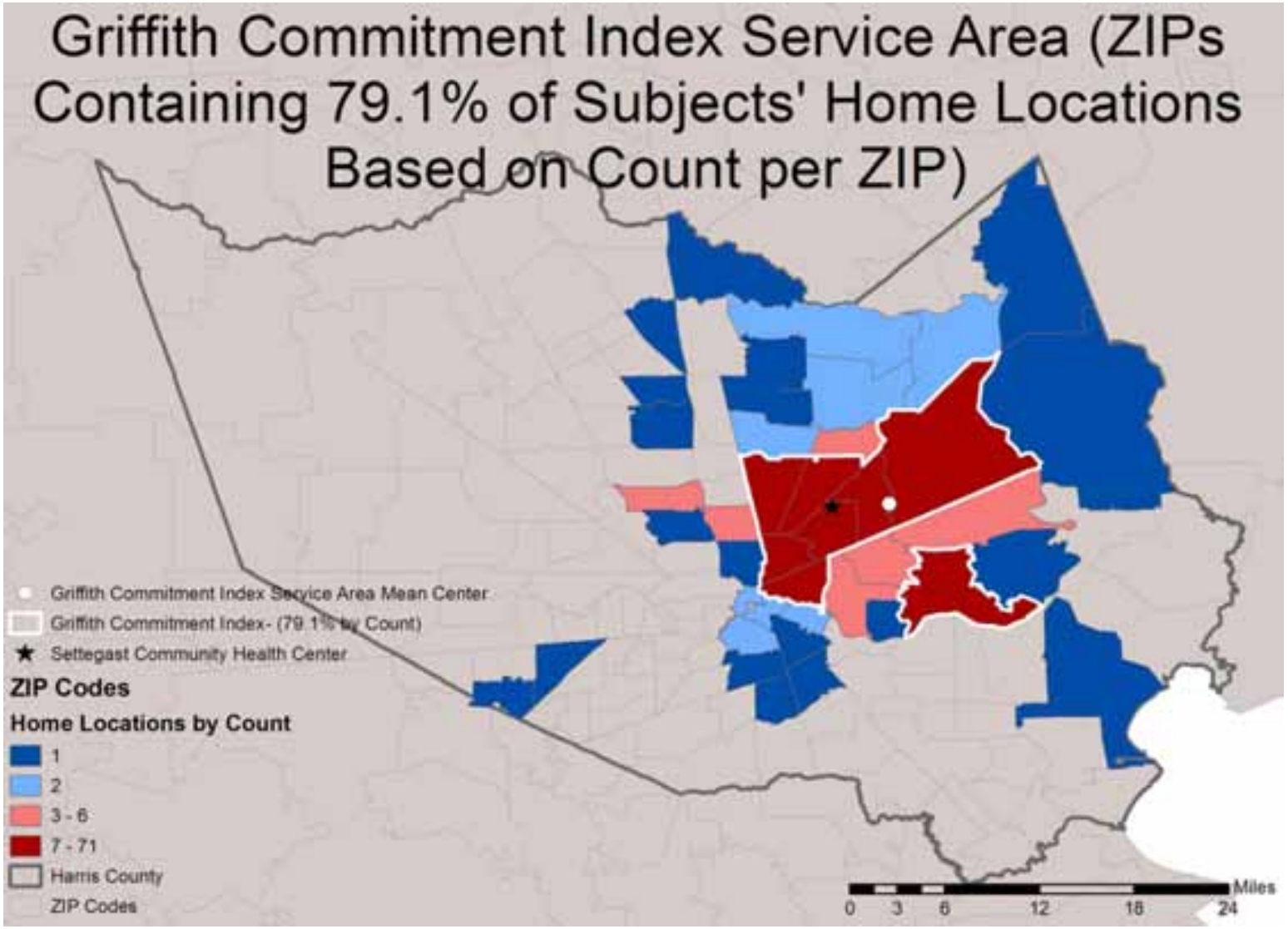


Figure 11.Map of the Comparison of GCI Service Area and Subjects' Home Locations

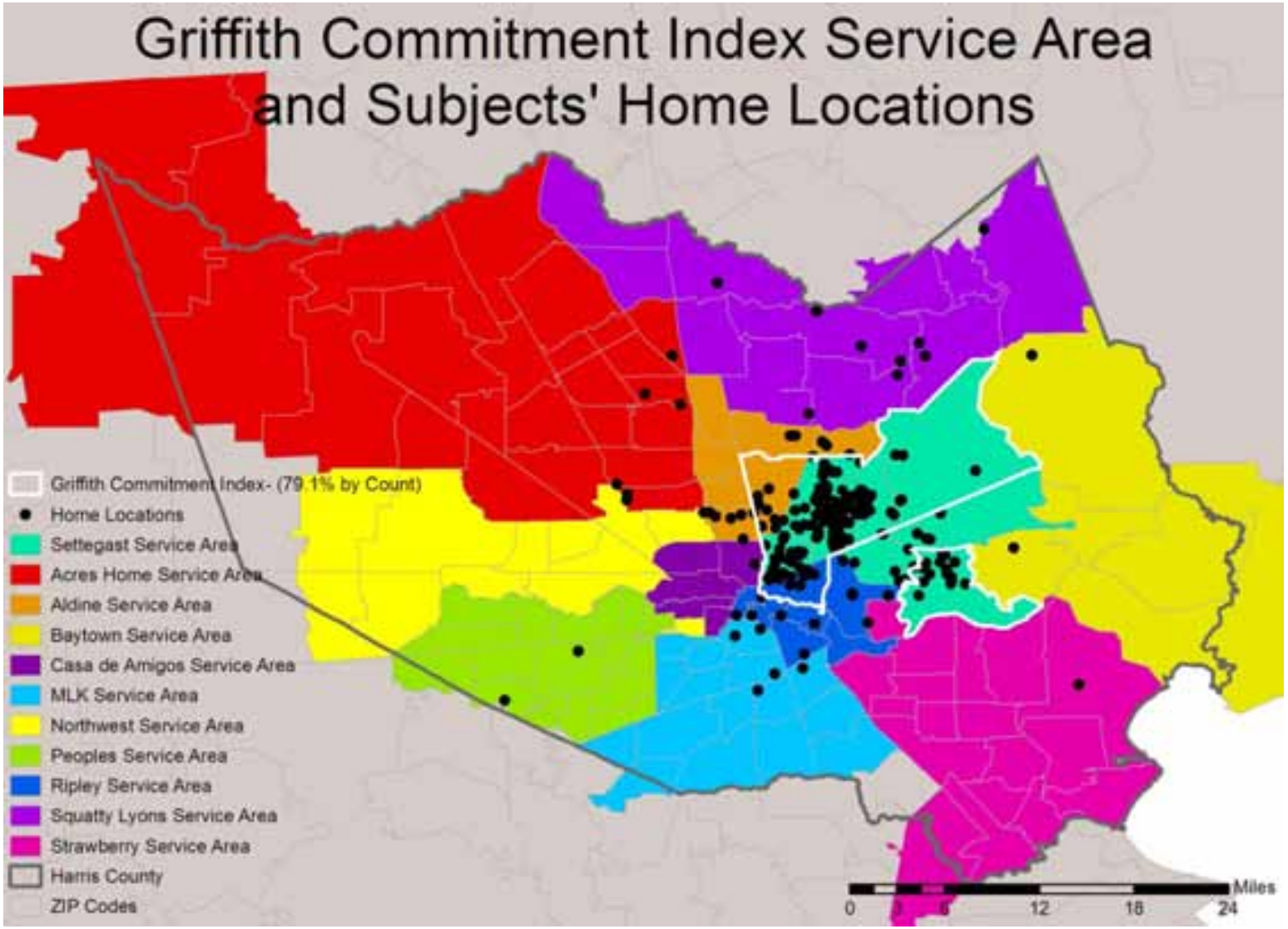


Figure 12.Map of the Comparison of GCI Service Area and HCHD Community Health Center Service Areas

Figure 13.Map of the Comparison of MLTWI Service Area and HCHD Community Health Center Service Areas

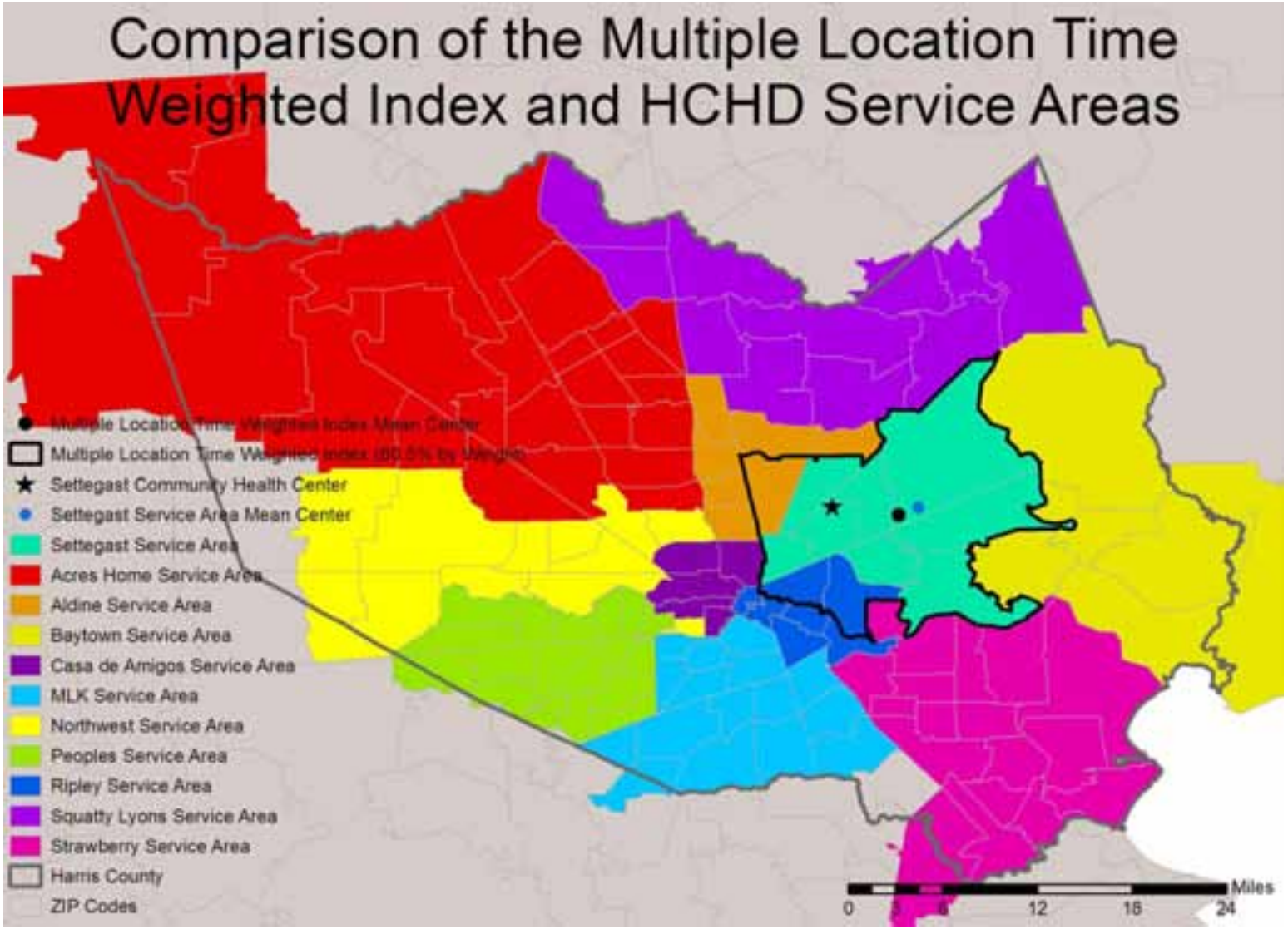


Figure 14.Map of the Comparison of HCHD Community Health Center, MLTWI and GCI Service Areas

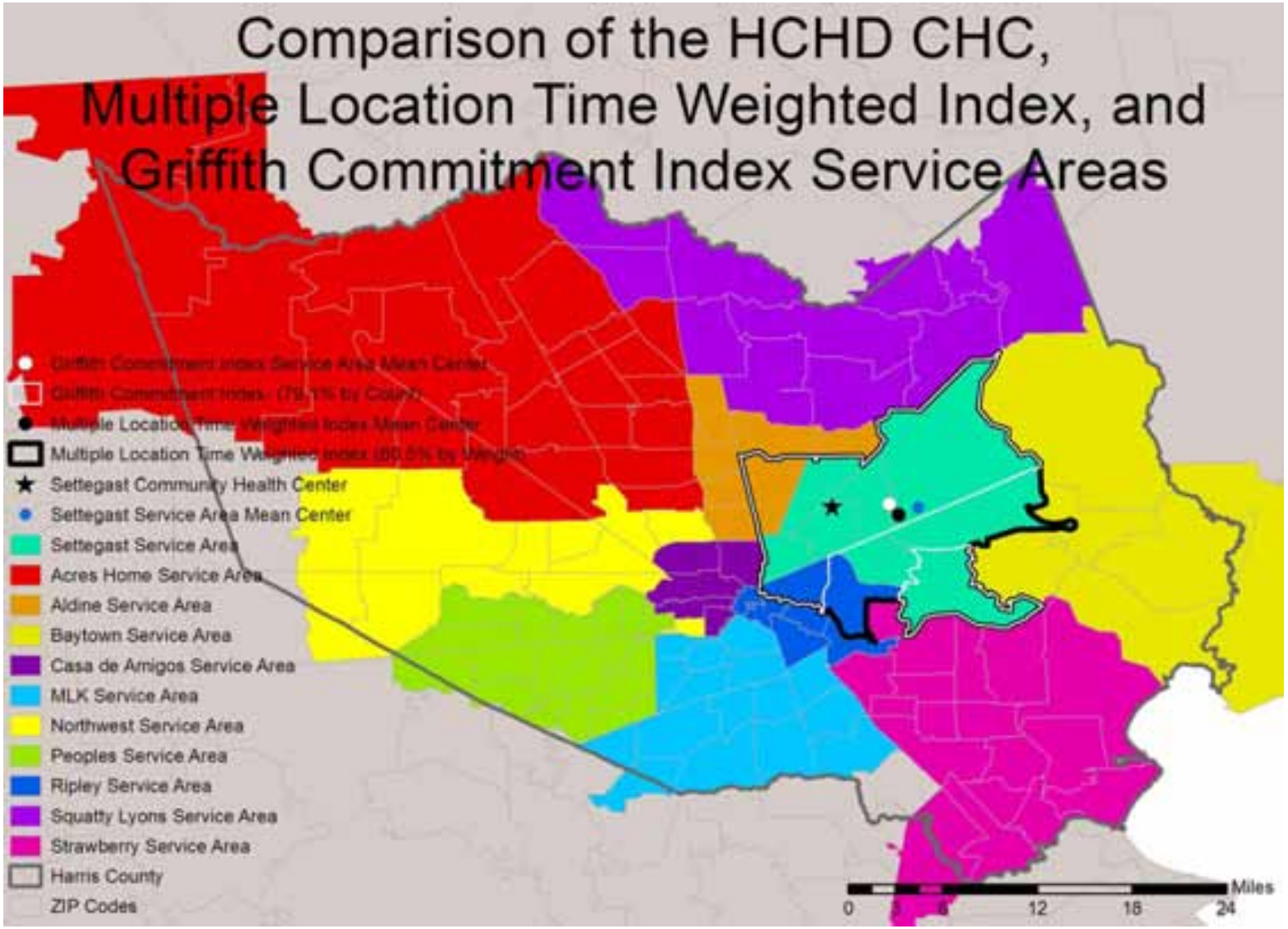


Figure 15.Map of MLTWI Service Area Calculated Using Health Locations Only

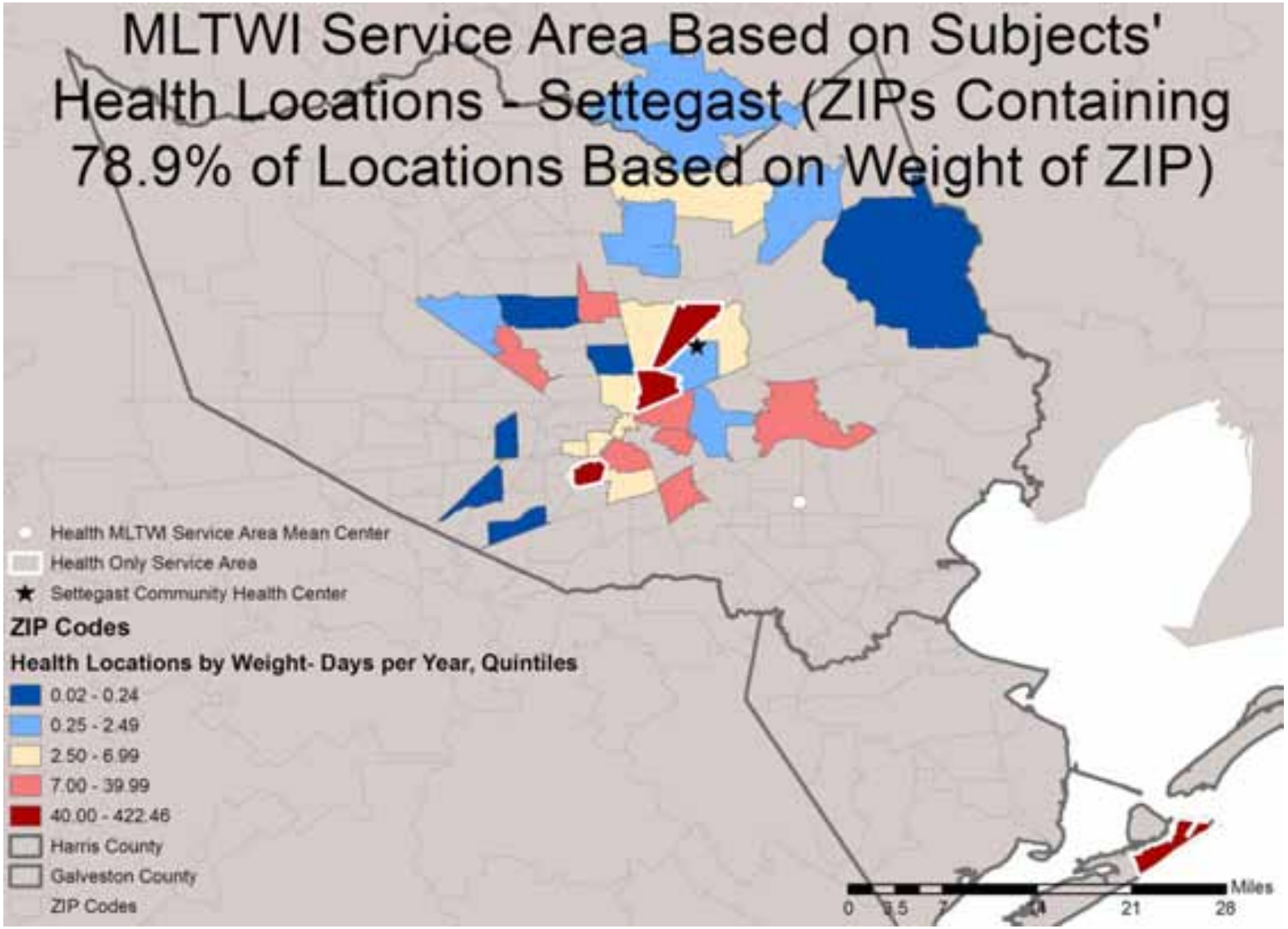


Figure 16.Map of MLTWI Service Area Calculated Using Non-Health Locations Only

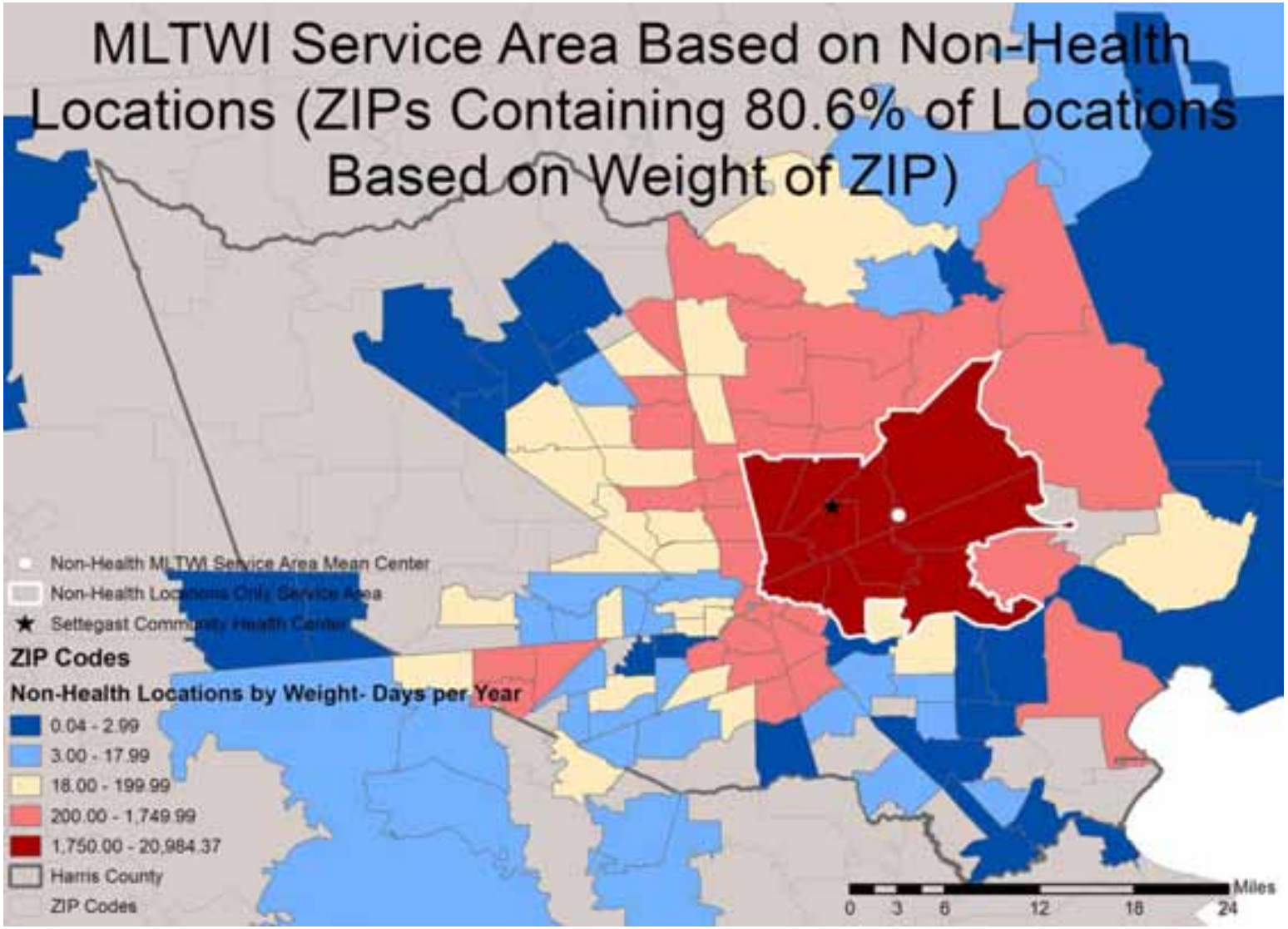


Figure 17.Map of MLTWI Service Area Calculated Using Only Locations Visited At Least Once a Week

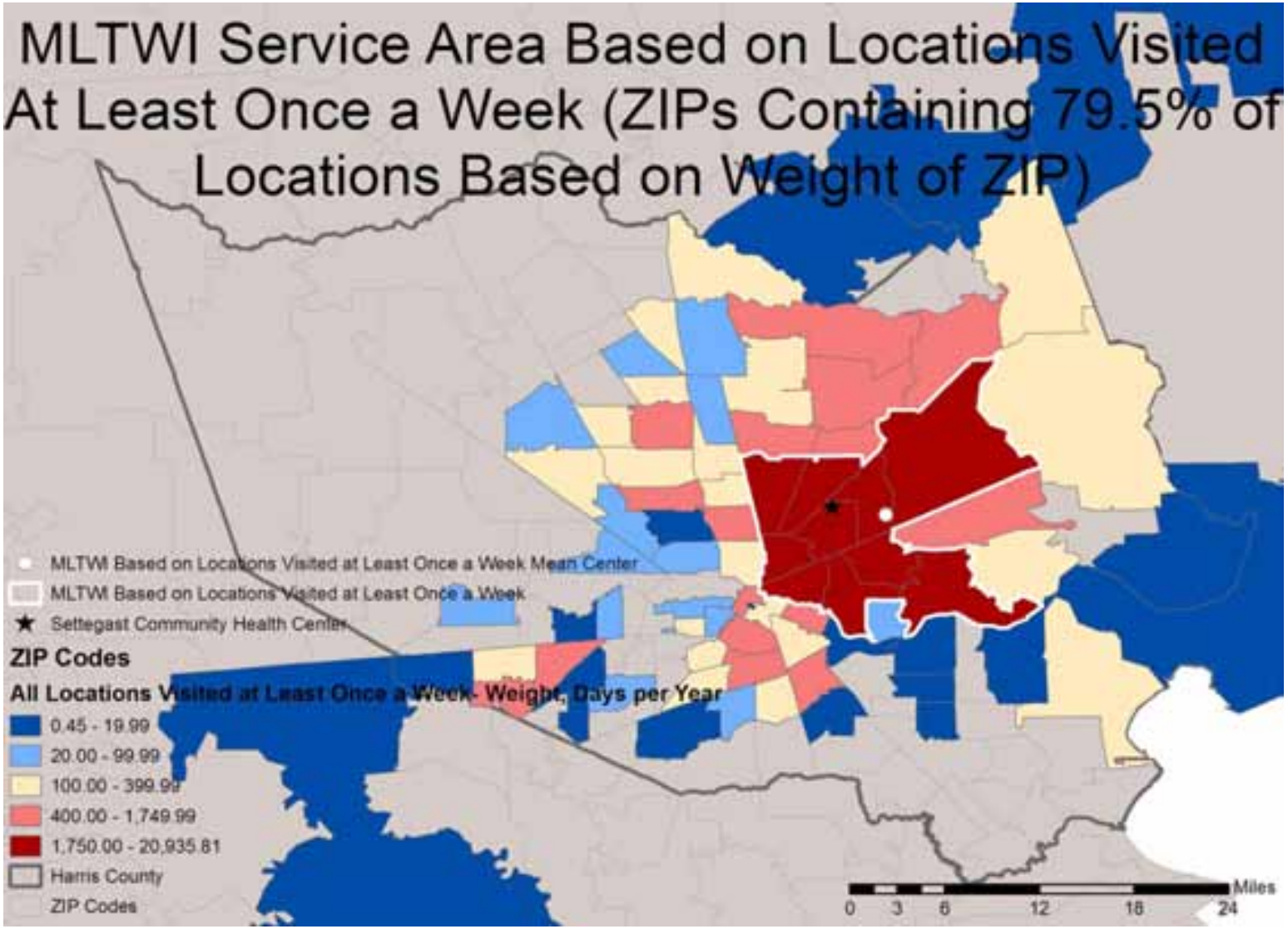


Figure 18.Map of MLTWI Service Area Calculated Using Only Locations Visited At Least Every Day

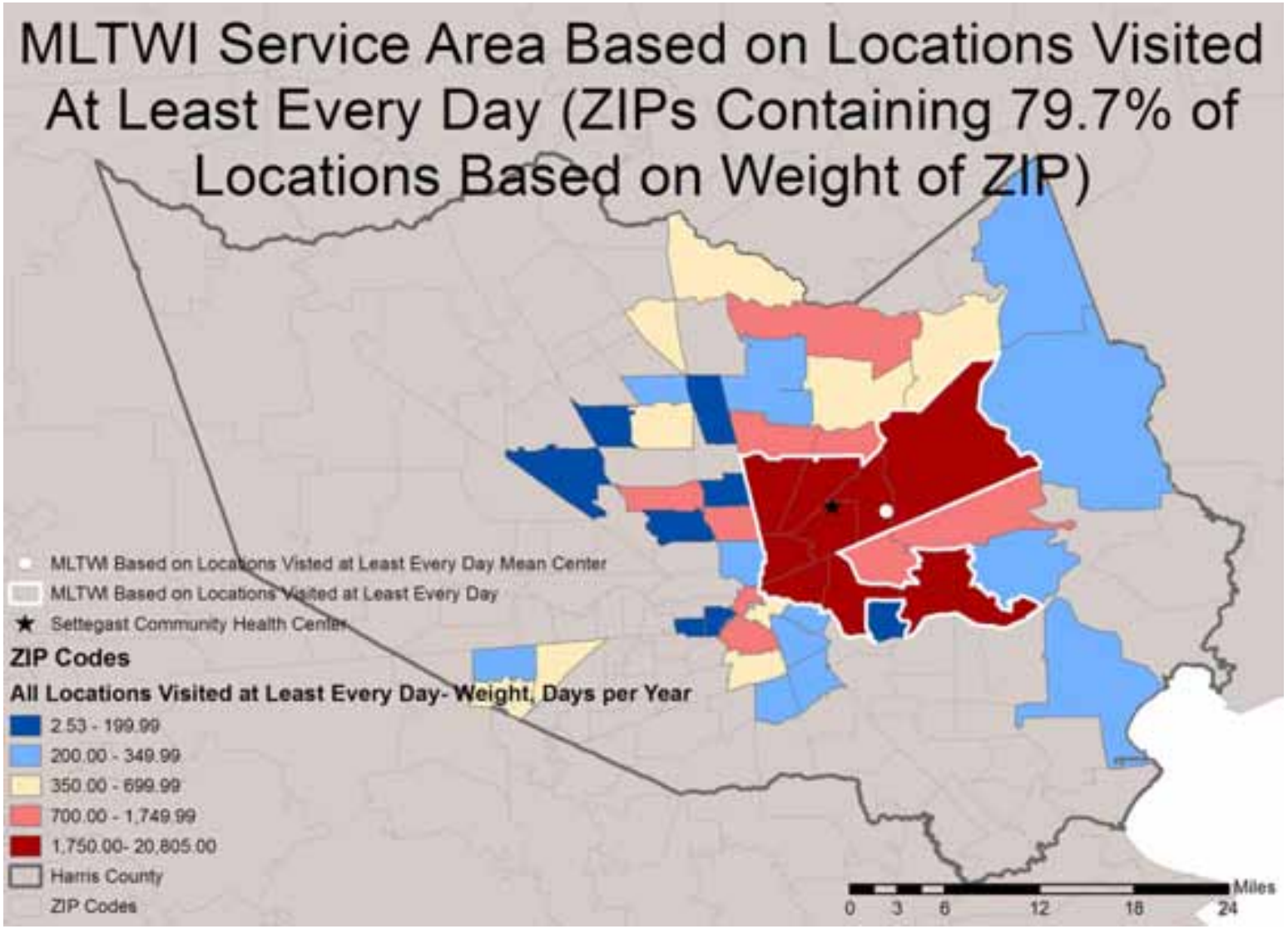


Figure 19.Map of MLTWI Service Area Calculated Using Only Locations Visited At Least 2.5 Hours per Visit

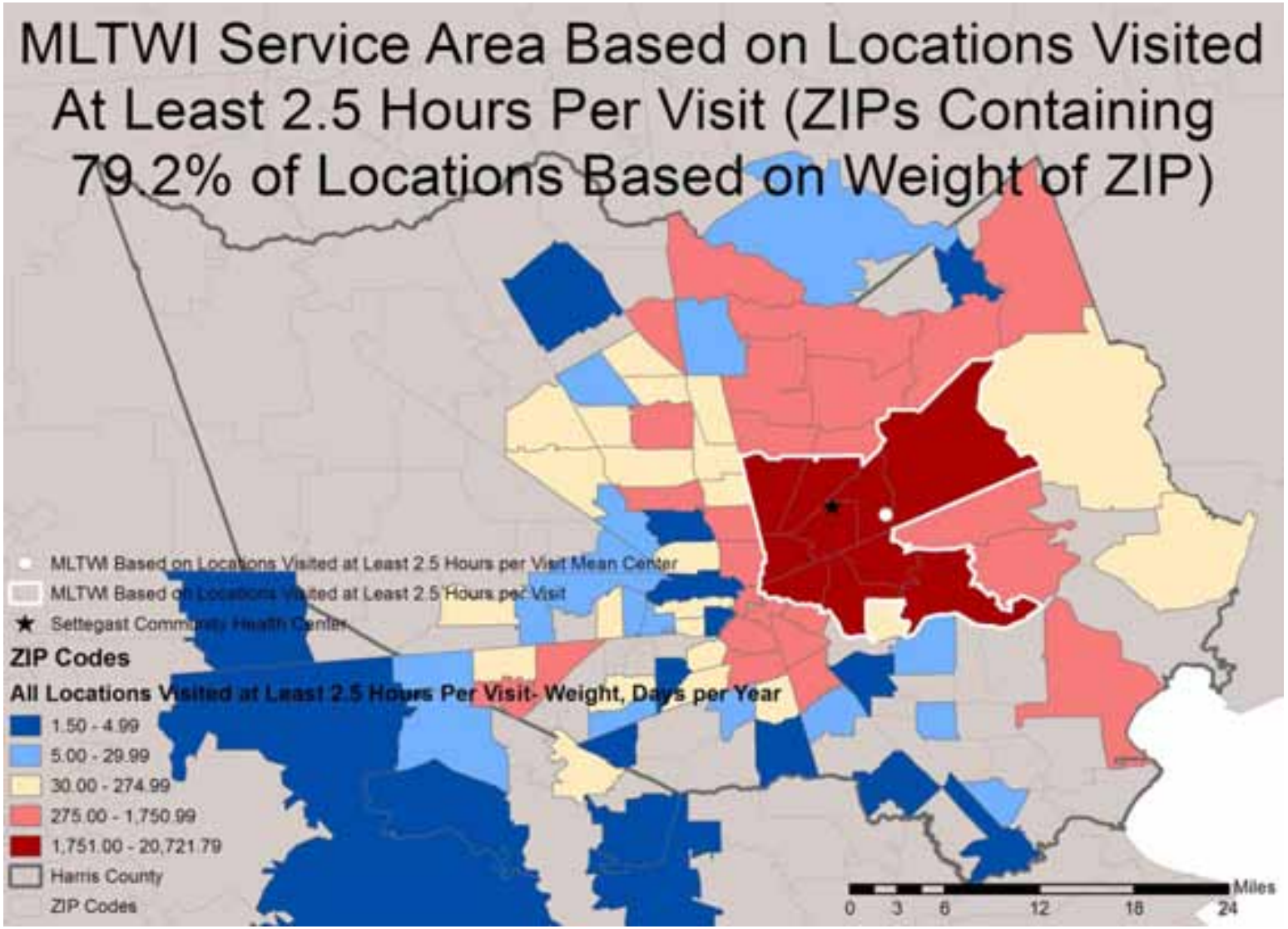


Figure 20.Map of MLTWI Service Area Calculated Using Only Locations Visited At Least 9 Hours per Visit

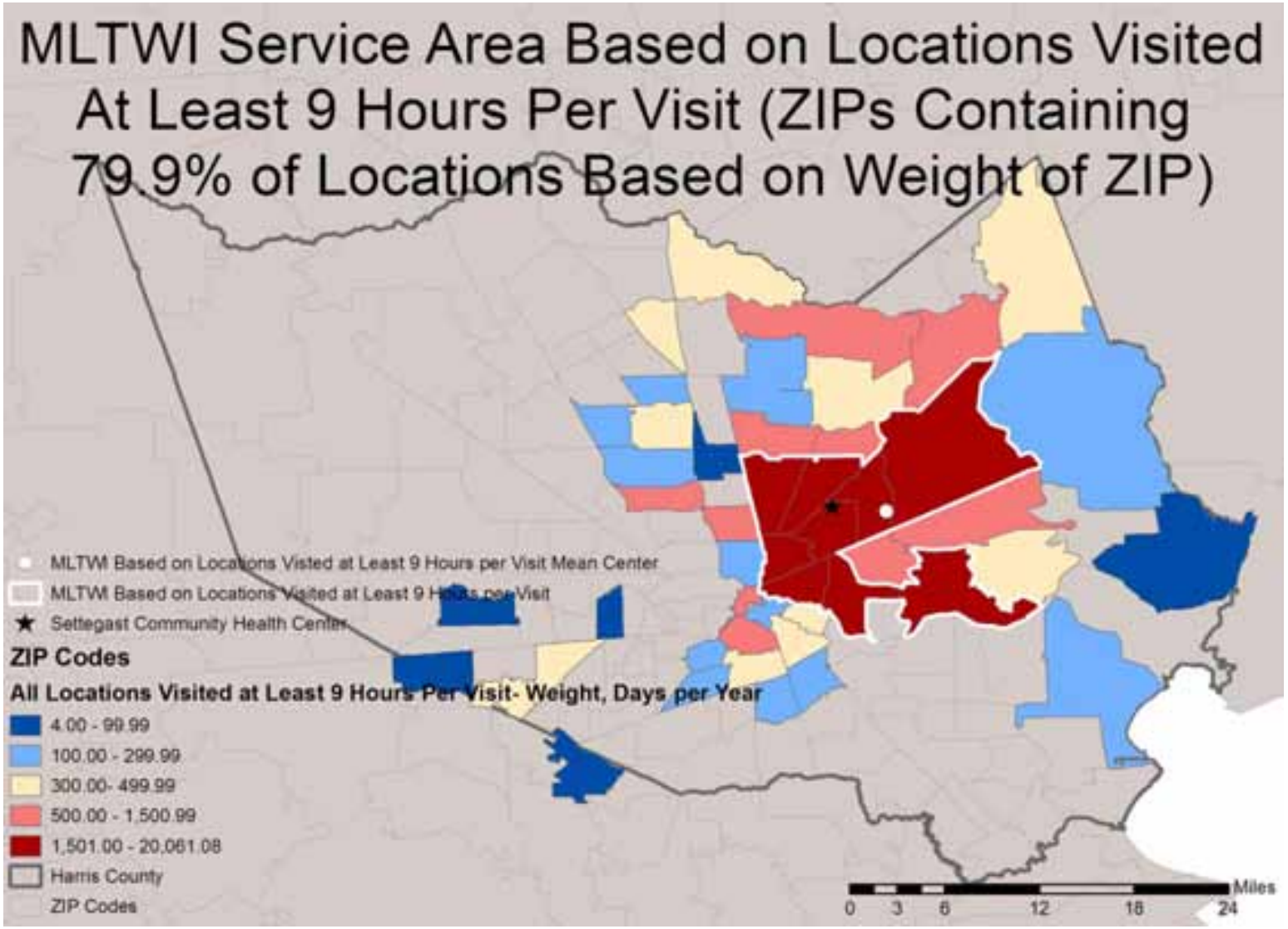


Figure 21.Map of Comparison of MLTWI Service Areas Using All Locations vs. Health Locations

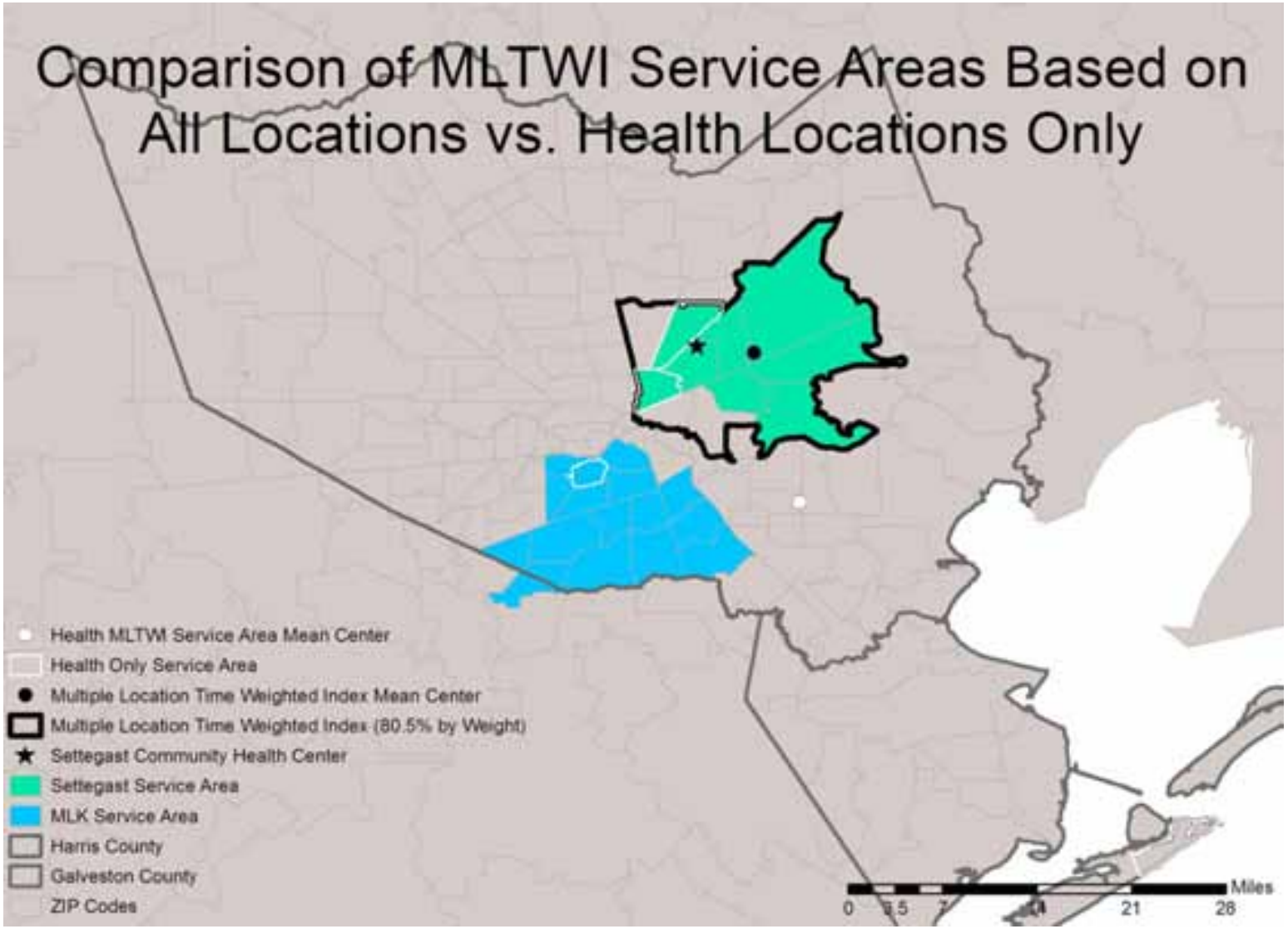


Figure 22.Map of Comparison of MLTWI Service Areas Using All Locations vs. Non-Health Locations

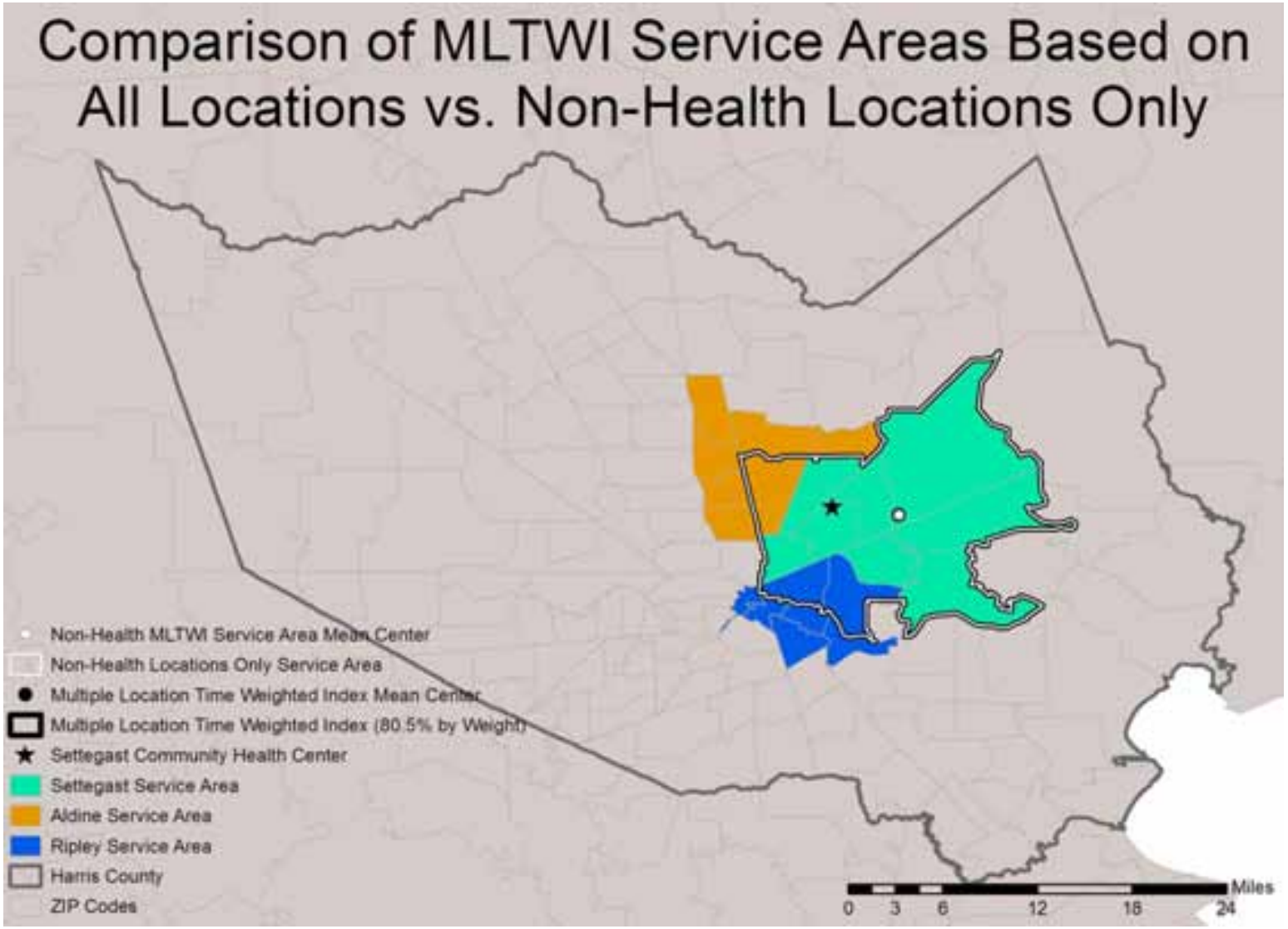


Figure 23.Map of Comparison of MLTWI Service Areas Using All Locations vs. Locations Visited At Least Once a Week

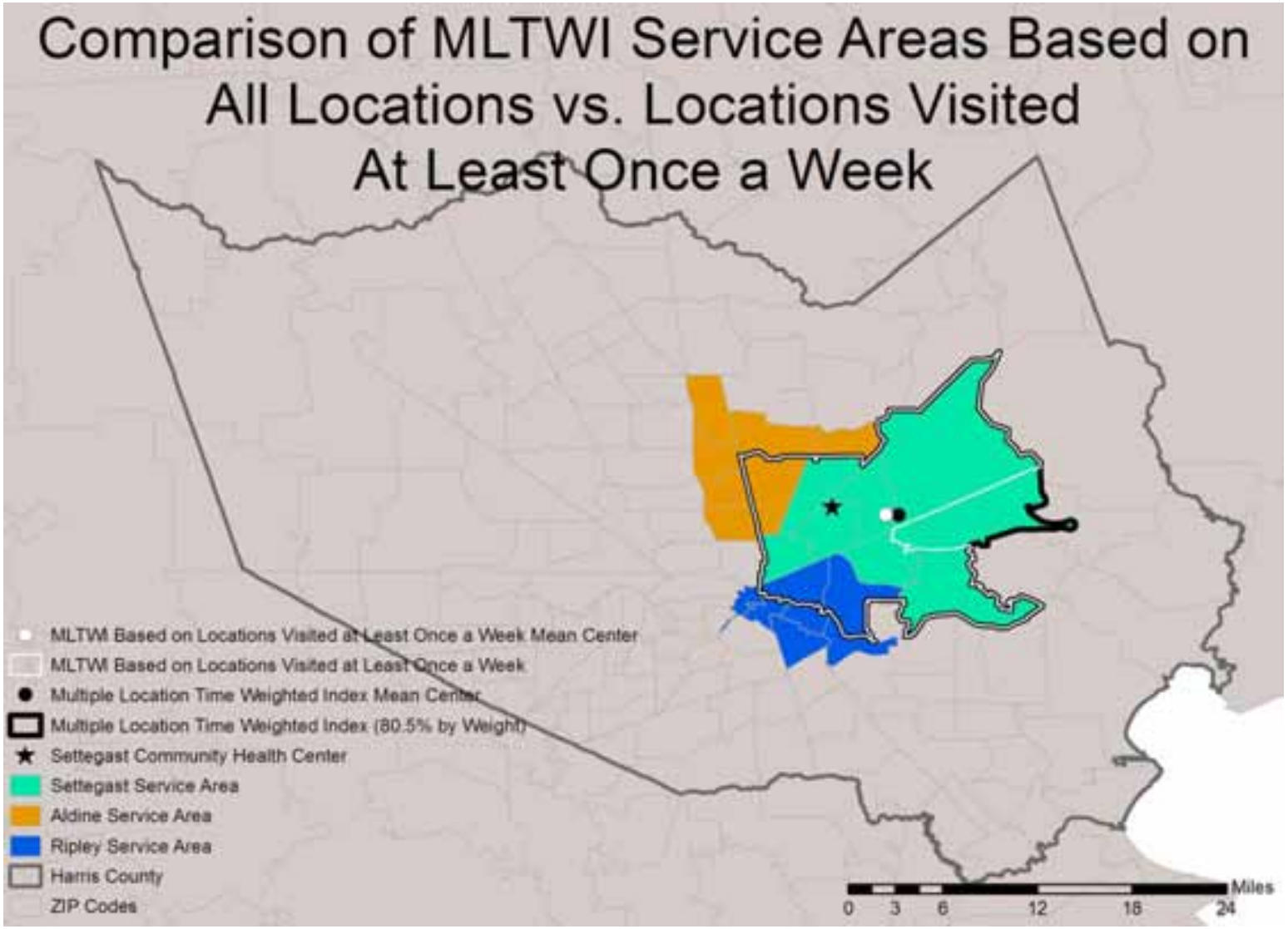


Figure 24.Map of Comparison of MLTWI Service Areas Using All Locations vs. Locations Visited At Least Every Day

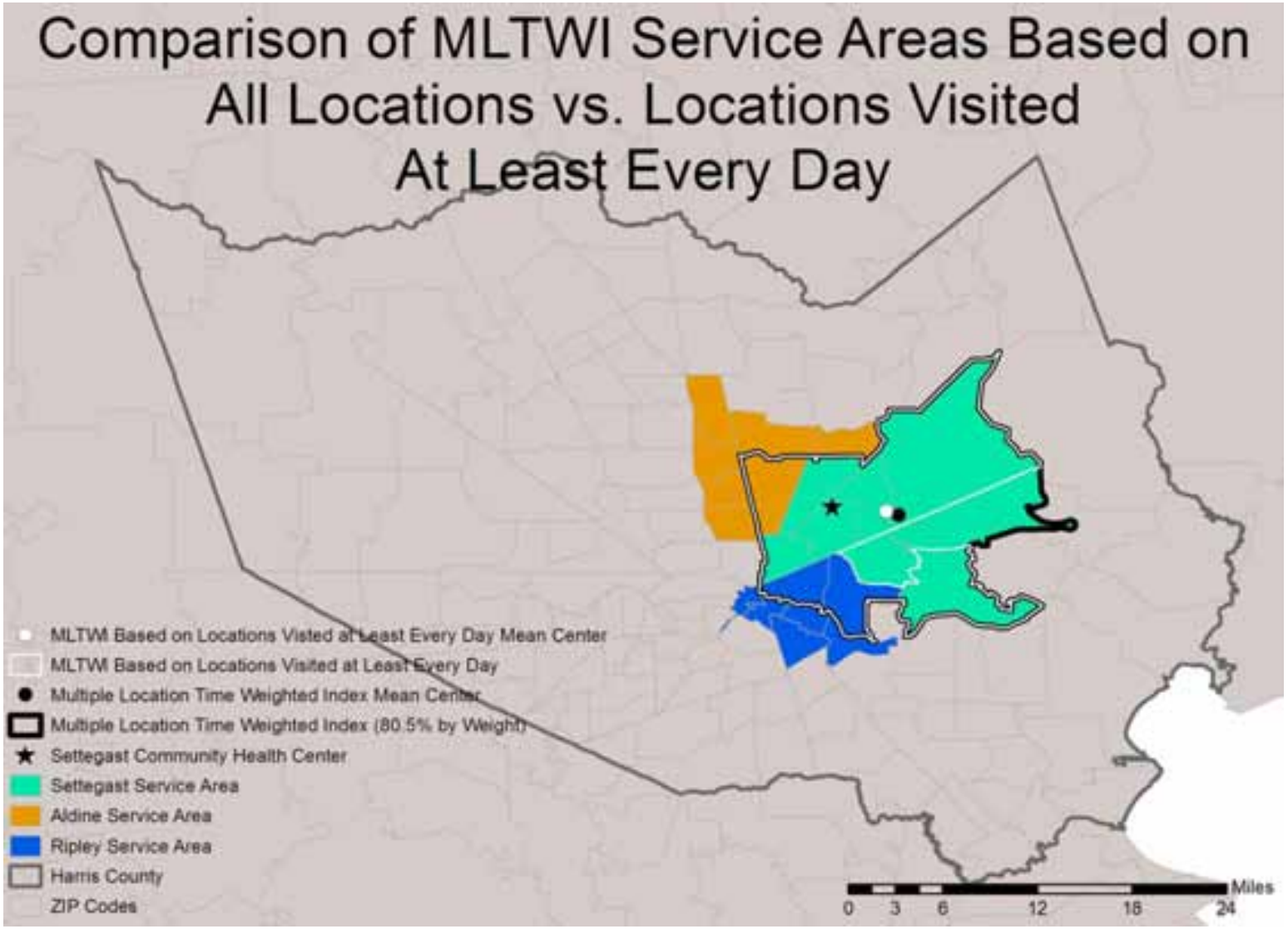


Figure 25.Map of Comparison of MLTWI Service Areas Using All Locations vs. Locations Visited At Least 2.5 Hours per Visit

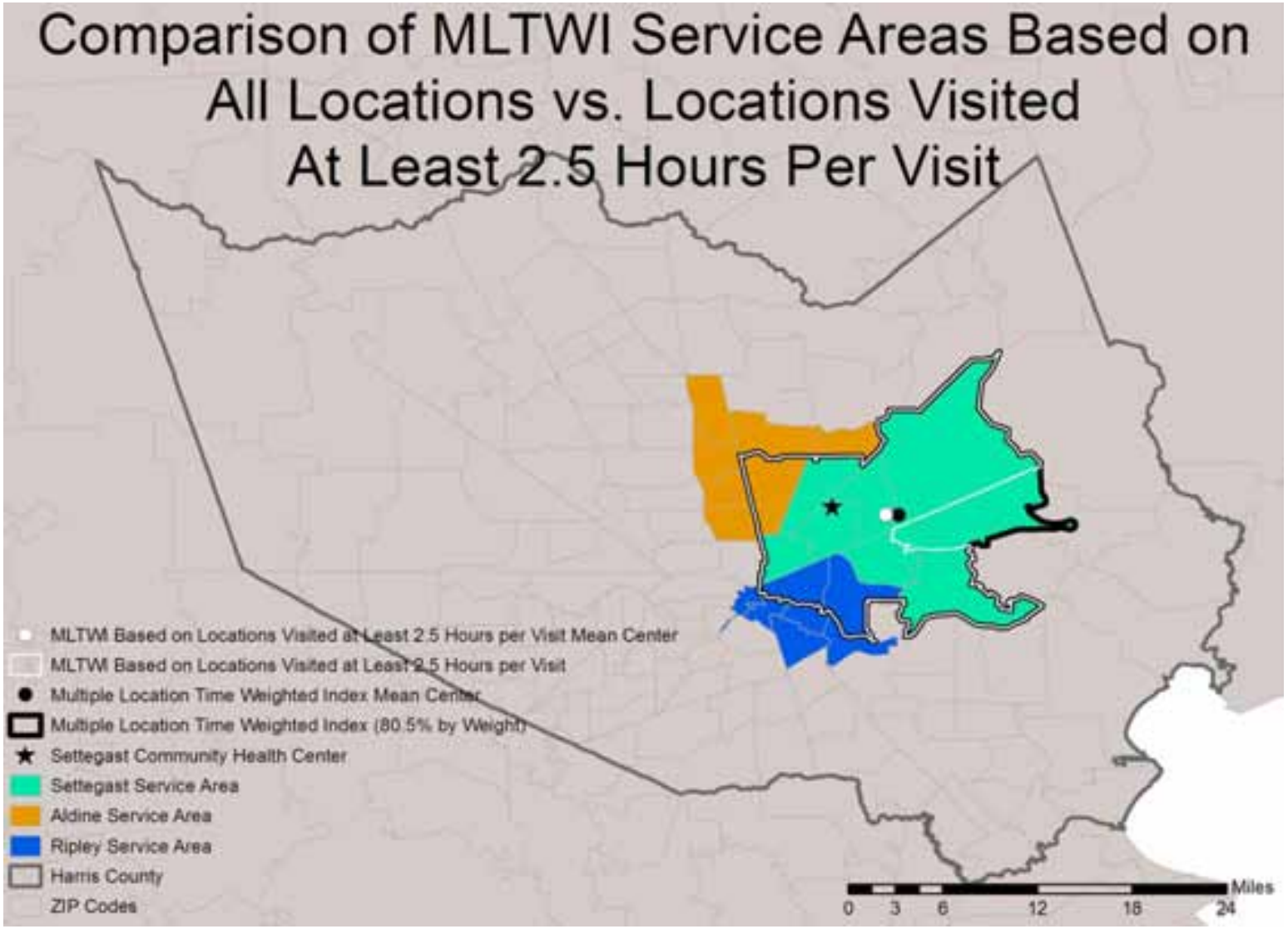
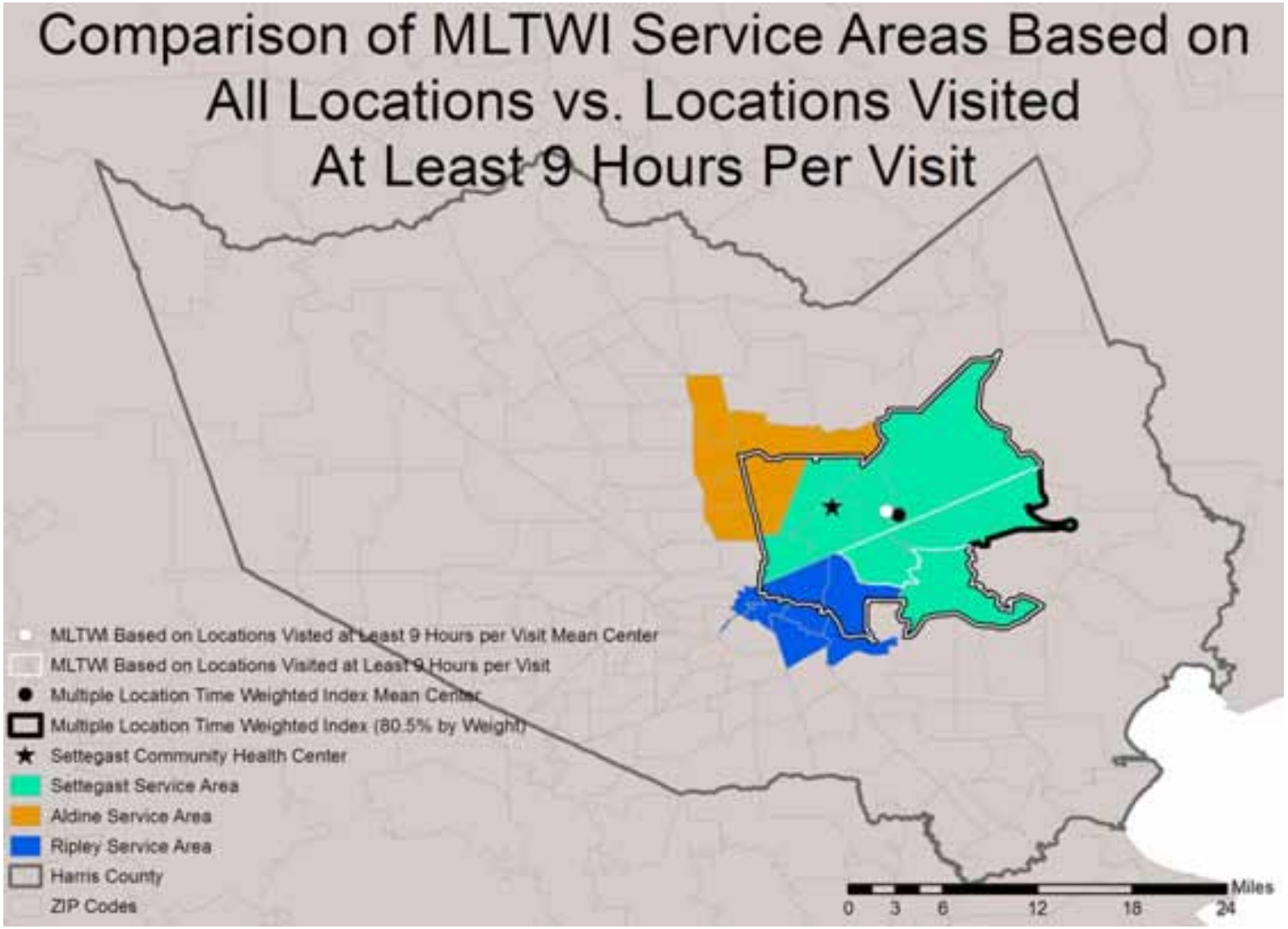


Figure 26.Map of Comparison of MLTWI Service Areas Using All Locations vs. Locations Visited At Least 9 Hours per Visit



APPENDICES

Appendix A. Health Care Choice Surveys

Health Care Choice Survey Survey #_____

Most of the people completing this survey will be a patient at the health center who makes his or her own decisions about their health care. Some people completing this survey will be the decision maker for children or dependent adults. **If you are not the health care decision maker for yourself or a patient at Settegast Health Center today, you should not complete this form.**

Thank you

****

Please circle the number that best fits your answer. Every question should have only one answer.

1. What is today's date?
   _____/_____/_____
   mm dd yyyy

2. Are you the patient today?
   Yes... 1
   No... 2

3. Are you filling this survey out for yourself or for someone else?
   Myself..... 1 **→ Go to Question 5**
   Someone else.... 2 **→ Go to Question 4**

   ****Only answer question 4 if you answered "Someone else- 2" to question 3****

4. If you are filling out the survey for someone else, do you choose where they go for health care?
   Yes.... 1
   No..... 2

****If you chose "No- 2" for question 4, please STOP. Do not continue- return the survey to the team. Thank you for trying to participate.****

Health Care Choice Survey Survey #_____

5. How often does the patient usually see any medical doctor?
   - Usually never..... 0
   - One time a year..... 1
   - Two times a year..... 2
   - Three or more times a year..... 3

6. Have you or the patient been told or know that he or she has gone to the emergency room for something that could have been taken care of at a doctor's office or clinic?
   - Yes..... 1
   - No..... 2
   - Don't Know..... 99

7. The patient has a medical doctor/ clinic he or she goes to regularly.
   - Yes..... 1
   - No..... 2
   - Don't Know..... 99

8. Settegast Health Center is where the patient receives most of his or her healthcare.
   - Yes..... 1
   - No..... 2
   - Don't Know..... 99

9. How many times has the patient been to Settegast Health Center in the past 5 years?
   - Never..... 0
   - Once..... 1
   - Twice..... 2
   - Three or more times..... 3

10. How many times has the patient been to Settegast Health Center in the past year?
   - Never..... 0
   - Once..... 1
   - Twice..... 2
   - Three or more times..... 3

11. I feel I have a choice when choosing a medical doctor/ clinic for the patient.
   - Yes..... 1
   - No..... 2
   - Don't Know..... 99

Health Care Choice Survey Survey #_____

12. I considered going/ taking the patient to other doctors/ clinics/ health care locations before choosing to come to Settegast Health Center today.

Yes	1
No	2
Don't Know	99

13. The location of a medical doctor/ clinic is important to me.

Yes	1
No	2
Don't Know	99

14. The location of a medical doctor/ clinic is the most important factor in choosing where to receive health care.

Yes	1	→ **Go to Question 15**
No	2	→ **Go to Question 16**
Don't Know	99	→ **Go to Question 15**

15. The MOST important factor in choosing a medical doctor/ clinic is whether the location is close to the patient's primary home address.

Yes	1
No	2
Don't Know	99

16. Where did the patient come directly from to get to Settegast Health Center today?

The patient came from home	1
The patient came from work	2
The patient came from school	3
The patient came from their child care provider	4
The patient came from where they worship	5
The patient came from shopping	6
The patient came from a volunteer location	7
The patient came from dining out	8
The patient came from a place of entertainment	9
The patient came from another doctor's or dentist's office	10
The patient came from a friend or relative's house	11
Other	88
Don't know	99

CHOOSE ONLY ONE ANSWER, PLEASE.

Health Care Choice Survey

Survey #_____

Please circle the number that corresponds to how important the reason listed was when you chose to come to Settegast Health Center today.

	Not Applicable	Very Unimportant	Unimportant	Uncertain or Neutral	Important	Very Important
17. The clinic is close to the patient's home.	0	1	2	3	4	5
18. They can meet all of the patient's health needs.	0	1	2	3	4	5
19. The clinic is close to my or the patient's school/ child care provider.	0	1	2	3	4	5
20. The clinic was recommended by a friend or relative.	0	1	2	3	4	5
21. The clinic is close to my or the patient's former work location.	0	1	2	3	4	5
22. The patient has always come here.	0	1	2	3	4	5
23. The clinic is on my or the patient's commute/ bus line.	0	1	2	3	4	5
24. The clinic takes the patient's insurance.	0	1	2	3	4	5
25. The clinic is close to my or the patient's former school/ child care provider.	0	1	2	3	4	5
26. The clinic offers free or low-cost doctor's visits.	0	1	2	3	4	5
27. They could see the patient quickly.	0	1	2	3	4	5
28. They could see the patient when it was convenient for me or the patient.	0	1	2	3	4	5
29. The clinic will see the patient if they are uninsured.	0	1	2	3	4	5
30. The patient likes the doctor.	0	1	2	3	4	5
31. The clinic is close to the patient's former home.	0	1	2	3	4	5
32. They speak the patient's language.	0	1	2	3	4	5
33. The clinic is close to my or the patient's work.	0	1	2	3	4	5
34. I/ the patient likes the clinic staff.	0	1	2	3	4	5
35. This is where my insurance/ HCHD told me/ the patient to come.	0	1	2	3	4	5

Health Care Choice Survey

Survey #_____

Please circle the number that corresponds to how important the reason listed would be when you choose your IDEAL health care provider.

	Not Applicable	Very Unimportant	Unimportant	Uncertain or Neutral	Important	Very Important
36. The patient likes the doctor.	0	1	2	3	4	5
37. The clinic is close to my or the patient's work.	0	1	2	3	4	5
38. The clinic will see the patient if they are uninsured.	0	1	2	3	4	5
39. The clinic is on my or the patient's commute/ bus line.	0	1	2	3	4	5
40. The clinic takes the patient's insurance.	0	1	2	3	4	5
41. I/ the patient likes the clinic staff.	0	1	2	3	4	5
42. The clinic is close to my or the patient's school/ child care provider.	0	1	2	3	4	5
43. The clinic offers free or low-cost doctor's visits.	0	1	2	3	4	5
44. The insurance company/ HCHD tells me/ the patient where to go.	0	1	2	3	4	5
45. They can see the patient quickly.	0	1	2	3	4	5
46. They can see the patient when it is convenient for me or the patient.	0	1	2	3	4	5
47. The clinic is close to the patient's home.	0	1	2	3	4	5
48. The clinic was recommended by a friend or relative.	0	1	2	3	4	5
49. They speak the patient's language.	0	1	2	3	4	5
50. They can meet all of the patient's health needs.	0	1	2	3	4	5

51. Does the patient live in one place or split time between residences?

The patient lives in one location..... 1

The patient lives in more than one location... 2

Health Care Choice Survey Survey #_____

52. How long has the patient lived at the current primary residence?

Less than one year	0
One year	1
Two years	2
More than two years	3

53. Does the patient work in one place or go to different locations?

The patient works in one location every day	1
The patient works in different, set locations every day	2
The patient works in different, unknown locations every day	3
The patient does not work	4

54. Which ONE reason is the MOST important when choosing a doctor/ clinic for the patient?

They can see the patient quickly when I call for an appointment	1
The clinic is close to my/ the patient's work	2
The clinic will see the patient if they are uninsured	3
The clinic was recommended by a friend or relative	4
The clinic is close to the patient's home	5
I/ the patient like the doctor	6
The clinic is on my/ the patient's commute/ bus line	7
They speak the patient's language	8
The clinic is close to my/ the patient's school	9
The clinic takes the patient's insurance	10
They can meet all of the patient's health care needs	11
They can see patient when it is convenient for me or the patient	12
The clinic is close to my/ the patient's child care provider	13
The clinic offers free or low cost doctor's visits	14
My/ the patient's insurance or HCHD tells the patient where to go	15
I/ the patient likes the clinic staff	16
Other	88
Don't know	99

CHOOSE ONLY ONE ANSWER, PLEASE.

55. How far did the patient travel to get to the clinic today?

Less than one mile	0
Between one and five miles	1
Between five and ten miles	2
More than ten miles	3
Don't Know	99

Health Care Choice Survey Survey #_____

56. How much farther would the patient have been willing to travel to get to the clinic today?

No farther	0
Up to five more miles	1
Up to ten more miles	2
More than ten miles	3
Don't Know	99

57. How long did it take the patient to get here today?

Less than five minutes	0
Between five and ten minutes	1
Between ten and fifteen minutes	2
More than fifteen minutes	3
Don't Know	99

58. How much longer would the patient have been willing to travel to get to the clinic today?

No longer	0
Up to five minutes longer	1
Up to ten minutes longer	2
More than ten minutes longer	3
Don't Know	99

59. When completing forms for the patient at the doctor's office, what address do you typically provide?

The patient's primary residence address	1	**CHOOSE ONLY ONE ANSWER, PLEASE.**
A mailing address that is not the patient's primary residence	2	
A Post Office Box (PO Box)	3	
A billing address that is not the patient's primary residence	4	
An address for another person who helps the patient pay the bills	5	
The patient's work address	6	
None	7	
False address information	8	
Other	88	
Don't know	99	

60. What is the patient's gender?

Female	1
Male	2

Health Care Choice Survey Survey #_____

61. Is the patient Hispanic or Latino?
    Yes.... 1
    No..... 2

62. What is the patient's race?
    African/ African American..... 1
    Asian or Pacific Islander..... 2
    Native American..... 3
    White..... 4
    Other (including multiracial)..... 5

CHOOSE ONLY ONE ANSWER, PLEASE.

63. What is the patient's date of birth?

    _____/_____/_____
    Month Day Year

64. How did the patient get to the clinic today?
    The patient came in the patient's car..... 1
    The patient came in a car borrowed from a friend or a relative... 2
    A friend or relative brought the patient here..... 3
    The patient took the bus or other public transportation..... 4
    The patient walked..... 5
    The patient used transportation provided by the clinic..... 6
    The patient took a taxi..... 7
    Other..... 88

65. What kind of health insurance does the patient have?
    Medicaid..... 1
    CHIP..... 2
    Medicare..... 3
    Other government insurance..... 4
    Private insurance from a family member's employer..... 5
    Private insurance purchased by the patient or the patient's family... 6
    The patient does not have health insurance..... 7
    Other (including Gold Card)..... 88
    Don't know..... 99

"If you are the patient, please STOP here. Please return the survey to the team. Thank you for participating today."

Health Care Choice Survey Survey #_____

Please answer the following questions only if you completed this form not as a patient but as the health care decision maker for the patient.

66. What is your gender?
Female.... 1
Male..... 2

67. Are you Hispanic or Latino?
Yes.... 1
No..... 2

68. What is your race?
African/ African American..... 1
Asian or Pacific Islander..... 2
Native American..... 3
White..... 4
Other (including multiracial)..... 5

CHOOSE ONLY ONE ANSWER, PLEASE.

69. What is your date of birth?

_____/_____/_____
Month Day Year

**Please STOP here. Please return the survey to the team.
Thank you for participating today.**

Encuesta Sobre Selección de Servicios de Salud

Encuesta #_____

La mayoría de las personas que diligencian esta encuesta serán pacientes en el centro de salud que tomas sus propias decisiones relacionadas con el cuidado en salud. Algunas personas diligenciando esta encuesta serán tomadores de decisiones en el cuidado de la salud por niños o adultos dependientes. **Si usted no es quien toma las decisiones en el cuidado de la salud por usted mismo o por un paciente en el Centro de Salud de Settegast, absténgase de completar este formulario.**

Gracias

****

Por favor encierre con un círculo el número que mejor se ajusta a su respuesta. cada pregunta debe de tener una única respuesta.

1. Qué fecha es hoy?
   _____/_____/_____
   mm dd aaaa

2. Está usted como paciente hoy?
   Si..... 1
   No..... 2

3. Está diligenciando esta encuesta por usted mismo o en nombre de alguien más?
   Mi mismo..... 1 → **Vaya a la Pregunta 5**
   Alguien más..... 2 → **Vaya a la Pregunta 4**

Solo conteste la pregunta 4 si usted contestó "Alguien más -2" en la pregunta 3

4. Si usted está diligenciando esta encuesta en nombre de alguien más, escogió donde va esa persona para cuidado en salud?
   Si..... 1
   No..... 2

Si escogió "No - 2" en la pregunta 4, por favor DETÉNGASE. No continúe y regresa la encuesta al equipo. Gracias por su intención de participar.

5. Qué tan frecuente va el paciente al doctor?
   Casi nunca..... 0
   Una vez al año..... 1
   Dos veces al año..... 2
   Tres o más veces al año..... 3

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

6. Le han dicho a usted o al paciente, o se ha enterado que el paciente a ido a la sala de emergencia por algo que pudo haberse atendido en la clinica o la oficina del doctor?
   - Si..... 1
   - No..... 2
   - No se..... 99

7. El paciente tiene un médico o clinica al cual va regularmente.
   - Si..... 1
   - No..... 2
   - No se..... 99

8. El Centro de Salud de Settegast es donde el paciente recibe la mayoría del cuidado en salud.
   - Si..... 1
   - No..... 2
   - No se..... 99

9. Cuántas veces ha estado el paciente en el Centro de Salud de Settegast en los últimos 5 años?
   - Nunca..... 0
   - Una vez..... 1
   - Dos veces..... 2
   - Tres o más veces..... 3

10. Cuántas veces ha estado el paciente en el Centro de Salud de Settegast en el último año?
    - Nunca..... 0
    - Una vez..... 1
    - Dos veces..... 2
    - Tres o más veces..... 3

11. Siento que tengo opciones al escoger un doctor o una clínica para el paciente.
    - Si..... 1
    - No..... 2
    - No se..... 99

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

12. Consideré en ir o llevar al paciente a otro médico/clínica/o sitio de salud antes de decidir de venir al Centro de Salud de Settegast hoy?
    Si..... 1
    No..... 2
    No se..... 99

13. La localización de la oficina del médico o la clínica es importante para mi.
    Si..... 1
    No..... 2
    No se..... 99

14. La localización de la oficina del médico o la clínica es el factor más importante para escoger donde recibir atención en salud.
    Si..... 1 → **Vaya a la Pregunta 15**
    No..... 2 → **Vaya a la Pregunta 16**
    No se..... 99 → **Vaya a la Pregunta 15**

15. El factor MAS importante cuando escojo un médico o clínica es si el sitio está cerca de la dirección de residencia principal del paciente.
    Si..... 1
    No..... 2
    No se..... 99

16. De dónde viene el paciente directamente hoy para ser atendido en el Centro de Salud Settegast?

El paciente viene de su casa	1
El paciente viene de su trabajo	2
El paciente viene de la escuela	3
El paciente viene de el sitio donde lo cuidan	4
El paciente viene de un servicio religioso	5
El paciente viene de hacer compras	6
El paciente viene de un sitio donde ejerce el voluntariado	7
El paciente viene de estar comiendo en la calle	8
El paciente viene de un sitio de entretenimiento	9
El paciente viene de la oficina de otro médico o dentista	10
El paciente viene de la casa de un amigo o familiar	11
Otro	88
No se	99

POR FAVOR, ESCOJA UNA ÚNICA RESPUESTA

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

Por favor encierre con un círculo el número que corresponda a grado de importancia para la razón de venir al Centro de Salud Settegat hoy,

	No Aplica	Casi Nada Importante	Poco Importante	Indeciso o Neutral	Importante	Muy Importante
17. La clínica está cerca de la casa del paciente.	0	1	2	3	4	5
18. Le resuelven todas las necesidades de salud al paciente.	0	1	2	3	4	5
19. La clínica está cerca de la escuela o sitio de cuidado míos o del paciente.	0	1	2	3	4	5
20. La clínica fue recomendada por un amigo o familiar.	0	1	2	3	4	5
21. La clínica está cerca del anterior sitio de trabajo mío o del paciente.	0	1	2	3	4	5
22. El paciente siempre ha venido acá.	0	1	2	3	4	5
23. La clínica está en la ruta diaria o línea de bus mía o del paciente.	0	1	2	3	4	5
24. La clínica recibe el seguro que el paciente tiene.	0	1	2	3	4	5
25. La clínica está cerca de la anterior escuela o sitio de cuidado míos o del paciente.	0	1	2	3	4	5
26. La clínica ofrece citas con el médico gratis o a bajo costo.	0	1	2	3	4	5
27. Pueden ver al paciente rápido.	0	1	2	3	4	5
28. Pueden ver al paciente cuando es conveniente para el paciente o para mí.	0	1	2	3	4	5
29. La clínica atenderá al paciente incluso sino tiene seguro.	0	1	2	3	4	5
30. Al paciente le gusta el doctor.	0	1	2	3	4	5
31. La clínica está cerca de la anterior casa mía o del paciente.	0	1	2	3	4	5
32. Ellos hablan el idioma del paciente.	0	1	2	3	4	5
33. La clínica está cerca del trabajo mío o del paciente.	0	1	2	3	4	5
34. Me o al paciente le gusta el personal de la clínica.	0	1	2	3	4	5
35. Aquí es donde mi aseguradora/ HCHD me o le dijeron al paciente que viniera.	0	1	2	3	4	5

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

Por favor encierre con un círculo el número que corresponda a grado de importancia para la razón de escoger el proveedor de salud IDEAL.

	No Aplica	Casi Nada Importante	Poco Importante	Indeciso o Neutral	Importante	Muy Importante
36. Al paciente le gusta el doctor.	0	1	2	3	4	5
37. La clinica está cerca del trabajo mio o del paciente.	0	1	2	3	4	5
38. La clinica atenderá al paciente incluso sino tiene seguro.	0	1	2	3	4	5
39. La clinica está en la ruta diaria o linea de bus mia o del paciente.	0	1	2	3	4	5
40. La clinica recibe el seguro que el paciente tiene.	0	1	2	3	4	5
41. A mi o al paciente le gusta el personal de la clinica.	0	1	2	3	4	5
42. La clinica está cerca de la escuela o sitio de cuidado mios o del paciente.	0	1	2	3	4	5
43. La clinica ofrece citas con el médico gratis o a bajo costo.	0	1	2	3	4	5
44. Mi seguro, o el del paciente, o HCHD me dicen donde debe de ir el paciente	0	1	2	3	4	5
45. Pueden atender al paciente rápidamente.	0	1	2	3	4	5
46. Pueden atender al paciente a mi conveniencia o la de él/ella.	0	1	2	3	4	5
47. La clinica está cerca de la casa del paciente.	0	1	2	3	4	5
48. La clinica fue recomendada por un amigo o familiar.	0	1	2	3	4	5
49. Ellos hablan el idioma del paciente.	0	1	2	3	4	5
50. Le resuelven todas las necesidades de salud al paciente.	0	1	2	3	4	5

51. El paciente vive en un solo sitio o tiene múltiples residencias?

El paciente vive en un solo sitio..... 1

El paciente vive en más de un lugar... 2

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

52. Hace cuánto el paciente vive en el lugar de residencia principal actual?

Menos de un año...	0
Un año.....	1
Dos años.....	2
Más de dos años...	3

53. El paciente trabaja en un solo sitio o va a múltiples lugares?

El paciente trabaja en un solo sitio todos los días.....	1
El paciente trabaja en diferentes pero bien definidos sitios cada día...	2
El paciente trabaja en sitios diferentes y desconocidos cada día.....	3
El paciente no trabaja.....	4

54. Cuál razón (UNA SOLA) es la MAS importante para escoger un doctor o clínica para el paciente?

Pueden atender al paciente rápidamente al pedir una cita.....	1
La clínica está cerca del trabajo mío o del paciente.....	2
La clínica atenderá al paciente incluso sino tiene seguro.....	3
La clínica fue recomendada por un amigo o familiar.....	4
La clínica está cerca de la casa del paciente.....	5
Me o al paciente le gusta el doctor.....	6
La clínica está en la ruta diaria o línea de bus mía o del paciente.....	7
Ellos hablan el idioma del paciente.....	8
La clínica está cerca de la escuela míos o del paciente.....	9
La clínica recibe el seguro que el paciente tiene.....	10
Le resuelven todas las necesidades de salud al paciente.....	11
Pueden atender al paciente a mi conveniencia o la de él/ella.....	12
La clínica está cerca de la anterior sitio de cuidado míos o del paciente.....	13
La clínica ofrece citas con el médico gratis o a bajo costo.....	14
Mi seguro o el del paciente o HCHD me dicen donde debe de ir el paciente..	15
Me o al paciente le gusta el personal de la clínica.....	16
Otro.....	88
No se.....	99

POR FAVOR, ESCOJA UNA ÚNICA RESPUESTA

55. Que tanto viajó el paciente para venir a la clínica hoy?

Menos de una milla.....	0
Entre una y cinco millas	1
Entre cinco y diez millas.....	2
Más de diez millas	3
No se.....	99

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

56. Qué distancia adicional estaría dispuesto el paciente a viajar para llegar a la clínica hoy?

Ninguna adicional	0
Hasta cinco millas más	1
Hasta diez millas más	2
Mas de diez millas	3
No se	99

57. Que tanto tiempo le tomó al paciente llegar hoy?

Menos de cinco minutos	0
Entre cinco y diez minutos	1
Entre diez y quince minutos	2
Más de quince minutos	3
No se	99

58. Que tiempo adicional estaría el paciente dispuesto a viajar para llegar a la clínica hoy?

Ninguno adicional	0
Hasta cinco minutos adicionales	1
Hasta diez minuto adicionales	2
Más de diez minutos adicionales	3
No se	99

59. Cuando diligencia los formularios en el consultorio del doctor, cuál es la dirección que generalmente suministra?

La dirección de la residencia primaria del paciente	1	**POR FAVOR, ESCOJA UNA ÚNICA RESPUESTA**
Una dirección de correo que no corresponde a la residencia primaria del paciente	2	
Un apartado aéreo o caja postal (P.O. Box)	3	
Una dirección de cobros que no corresponde con la residencia primaria del paciente	4	
La dirección de una persona que ayuda al paciente con el pago de las cuentas	5	
La dirección de trabajo del paciente	6	
Ninguna	7	
Información de dirección falsa	8	
Otro	88	
No se	99	

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

60. Cuál es el género del paciente?

Femenino... 1
Masculino... 2

61. Es el paciente de origen hispano o latino?

Si.... 1
No... 2

62. Cuál es la raza del paciente?

Africano o Afroamericano..... 1
Asiático o de las Islas del Pacifico..... 2
Indigena Americano..... 3
Blanco..... 4
Otro (incluye múltiples razas)..... 5

POR FAVOR, ESCOJA UNA ÚNICA RESPUESTA

63. Cuál es la fecha de nacimiento del paciente? _____/_____/_____
Mes Día Año

64. En qué llegó el paciente a la clínica hoy?

El paciente vino en su carro..... 1
El paciente vino en un carro prestado por un amigo o familiar..... 2
Un amigo o familiar trajo al paciente hasta acá..... 3
El paciente vino en bus u otro trasporte público..... 4
El paciente vino caminando..... 5
El paciente utilizó un medio de transporte facilitado por la clínica... 6
El paciente llegó en taxi..... 7
Otro..... 88

65. Que tipo de seguro tiene el paciente?

Medicaid..... 1
CHIP..... 2
Medicare..... 3
Otro seguro gubernamental..... 4
Seguro privado del empleador de un familiar..... 5
Seguro privado pagado por el paciente o su familia... 6
No tiene ningún tipo de seguro..... 7
Otro (incluye Tarjeta Dorada/ Gold Card)..... 88
No se..... 99

**** Si usted es el paciente, por favor DETÉNGASE acá. Regrese la encuesta al equipo. Muchas gracias por su participación hoy.****

Encuesta Sobre Selección de Servicios de Salud Encuesta #_____

Pro favor conteste las siguiente preguntas solo sí usted diligenció este formulario no como paciente, sino como el tomador de decisiones en salud del paciente.

66. Cuál es su género?
    Femenino... 1
    Masculino... 2

67. Es usted hispano o latino?
    Si.... 1
    No... 2

68. Cuál es su raza?
    Africano o Afroamericano..... 1
    Asiático o de las Islas del Pacífico..... 2
    Indígena Americano..... 3
    Blanco..... 4
    Otro (incluye muútiples razas)..... 5

POR FAVOR, ESCOJA UNA ÚNICA RESPUESTA

69. Cuál es su fecha de nacimiento

    _____/_____/_____
    Mes Dia Año

**** POR FAVOR DETÉNGASE ACÀ. Regrese la encuesta al equipo. Muchas gracias por su participación hoy.****

ACTIVITY SPACE LOG

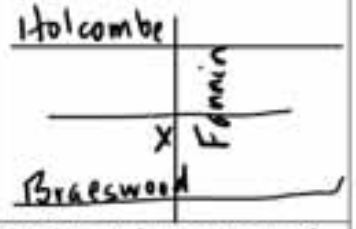
Survey # _____

This Activity Space Log has four sections. The first two sections are about the person who makes the health care decisions for the patient. Most adults will be the patient and decision maker. For child and a few adult patients, the decision maker either will be the parent or legal guardian. **Everyone will complete the first two sections, A and B.** The second two sections are about the patient and should only be completed if the patient is not the health care decision maker.

Use additional pages for each section as necessary.

Examples of acceptable address formats

All of these examples represent the same building. Apartment numbers and suite numbers are not necessary.

7000 Fannin St. Houston, Texas 77030	UT's University Center Tower in the Texas Medical Center
	On Fannin about half-way between Holcombe and Braeswood. It is on a corner, but I don't remember the street name. 
Across from the Texas Medical Center Transit Station on Fannin- on the same side of Fannin	On the southwest corner of the intersection of Fannin and Pressler in the Texas Medical Center

Acceptable but not preferred address formats:

- Major road cross streets without including more information about where the place is from those roads for example, for the example:
  - Fannin and Holcombe is not as good as south of Holcombe on Fannin, across from the TMC Transit Center
- Zip Code only
- Name of business (some hint of location would be appreciated)
  - UT's University Center Tower in the Texas Medical Center is better than just University Center Tower

Unacceptable address formats

- Post Office Boxes (we need the address for the place where you actually spend your time)

SECTION A- Health Care Decision Maker: Regular Locations Survey # _____

Please list ALL addresses where **you** regularly go. List how often **you** go to each place and how much time **you** typically spend at each place. If **you** work in multiple places throughout the day, but not on a fixed schedule (for example delivery; cable or phone installation; or hired on a daily basis) please choose Work in Step 1, write Various in Step 2 and then complete Steps 3 and 4 as if **you** were in one place all day.

STEP 1 →	STEP 2 →	STEP 3
Type of place (circle the number(s) that describes this location)	**Street Address including City, State, Zip Code (address is best but you can list the closest cross streets or draw a map)**	**Frequency of visits and time spent at location**
Home ..... 1 Work ..... 2 School ..... 3 Child Care ..... 4 Grocery shopping ..... 5 Other shopping ..... 6 Convenience mart ..... 7 Car service (including gas) 8 Entertainment ..... 9 Worship ..... 10 Social Visit ..... 11 Volunteer ..... 12 Dining Out ..... 13 Bank ..... 14 Place to buy stamps or send letters and packages ..... 15 Other ..... 88 Please explain: _____	Name of location (optional): _____ Address or Map: Key Map Reference: _____	How often do **you** usually go to this location? **(choose one)** Every day ..... 1 More than once a day ..... 2 Once a week ..... 3 Every weekday (M-F) ..... 4 More than once a week ..... 5 Once a month ..... 6 More than once a month ..... 7 How much time do **you** usually spend here during each visit? _____ Minutes _____ Hours How long have **you** gone to this location? _____ Months _____ Years

Please use as many pages for Section A as you need. Page _____ of _____

SECTION B- Health Care Decision Maker: Health Care Locations Survey # _____

Please list places where **you regularly** seek medical help, prescriptions, or doctor's visits. These places should be where **you regularly** go for health care. If a time reference helps you, think of the places **you** have been over the past year, but it is not necessary to limit the time frame to a year.

STEP 1 →	STEP 2 →	STEP 3
Type of place (circle the number(s) that describes this location)	**Street Address including City, State, Zip Code (address is best but you can list the closest cross streets or draw a map)**	**Frequency of visits and time spent at location**
Routine care ..... 16 Sick care ..... 17 Specialist ..... 18 Traditional Medicine..... 19 Pharmacy..... 20 Dentist..... 21 Mental Health Provider.... 22 Physical Therapist..... 23 Other ..... 88 Please explain: _____	Name of location (optional): _____ Address or Map: Key Map Reference: _____	How often do **you** usually go to this location? **(choose one)** Every day ..... 1 More than once a day..... 2 Once a week ..... 3 Every weekday (M-F)..... 4 More than once a week ..... 5 Once a month..... 6 More than once a month..... 7 Once a year..... 8 Two times per year..... 9 Three or more times a year.. 10 How much time do **you** usually spend here during each visit? _____ Minutes _____ Hours How long have **you** gone to this location? _____ Months _____ Years

Please use as many pages for Section B as you need. Page _____ of _____

SECTION C- PATIENT: Regular Locations Survey # _____

List how often **the patient** goes to each place and how much time **the patient** typically spends at each place even if you already listed these places in Section A. If **the patient** works in multiple places but not on a fixed schedule (for example delivery; cable or phone installation; or hired on a daily basis) please choose Work in Step 1, write Various in Step 2 and then complete Steps 3 and 4 as if **the patient** were in one place all day.

STEP 1 →	STEP 2 →	STEP 3
Type of place (circle the number(s) that describes this location)	**Street Address including City, State, Zip Code (address is best but you can list the closest cross streets or draw a map)**	**Frequency of visits and time spent at location**
Home ..... 1 Work ..... 2 School ..... 3 Child Care ..... 4 Grocery shopping ..... 5 Other shopping ..... 6 Convenience mart ..... 7 Car service (including gas) 8 Entertainment ..... 9 Worship ..... 10 Social Visit ..... 11 Volunteer ..... 12 Dining Out ..... 13 Bank ..... 14 Place to buy stamps or send letters and packages ..... 15 Other ..... 88 Please explain: _____	Name of location (optional): _____ Address or Map: Key Map Reference: _____	How often does **the patient** usually go to this location? **(choose one)** Every day ..... 1 More than once a day ..... 2 Once a week ..... 3 Every weekday (M-F) ..... 4 More than once a week ..... 5 Once a month ..... 6 More than once a month ..... 7 How much time does **the patient** usually spend here during each visit? _____ Minutes _____ Hours How long has **the patient** gone to this location? _____ Months _____ Years

Please use as many pages for Section C as you need. Page _____ of _____

SECTION D- PATIENT: Health Care Locations Survey # _____

Please list places where **the patient regularly** seeks medical help, prescriptions, or doctor's visits. These places should be where **the patient regularly** goes for health care. If a time you need a time frame, think of the places **the patient** has been over the past year, but it is not necessary to limit the time frame to a year.

STEP 1 →	STEP 2 →	STEP 3
Type of place (circle the number(s) that describes this location)	**Street Address including City, State, Zip Code (address is best but you can list the closest cross streets or draw a map)**	**Frequency of visits and time spent at location**
Routine care ..... 16 Sick care ..... 17 Specialist ..... 18 Traditional Medicine..... 19 Pharmacy..... 20 Dentist..... 21 Mental Health Provider.... 22 Physical Therapist ..... 23 Other ..... 88 Please explain: _____	Name of location (optional): _____ Address or Map: Key Map Reference: _____	How often does **the patient** usually go to this location? **(choose one)** Every day.....1 More than once a day .....2 Once a week.....3 Every weekday (M-F).....4 More than once a week.....5 Once a month .....6 More than once a month .....7 Once a year.....8 Two times per year .....9 Three or more times a year .....10 How much time does **the patient** usually spend here during each visit? _____ Minutes _____ Hours How long has **the patient** gone to this location? _____ Months _____ Years

Please use as many pages for Section D as you need. Page _____ of _____

REGISTRO DE ESPACIOS DE ACTIVIDAD

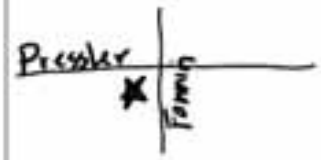
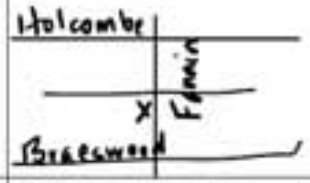
Encuesta # _____

Este registro tiene cuatro secciones. Las primeras dos secciones son para la persona que toma las decisiones que tienen que ver con la salud del paciente. La mayoría de los adultos serán pacientes y ellos toman la decisión. Para los niños y algunos pacientes adultos quien toma la decisión será cualquiera de los padres o el representante legal. **Cada persona debe completar las secciones A y B.** Las ultimas dos secciones son relacionados con el paciente y solo deben ser completadas si el paciente no es el que toma las decisiones que tiene que ver con la salud.

Si es necesario use las páginas adicionales para cada sección.

Ejemplos de formatos de direcciones aceptados

Todos estos ejemplos representan el mismo edificio. Los números de los apartamentos y de las oficinas no son necesarios.

7000 Fannin St. Houston, Texas 77030	Torre Central de la Universidad de Texas en Texas Medical Center
	Sobre Fannin entre Holcombe y Braeswood. Se encuentra en una esquina pero no recuerdo el nombre de la calle. 
Cruzando la Estación del Tren Texas Medical Center (TMC) sobre Fannin en el mismo lado	Sobre la esquina suroccidental de la intersección de Fannin con Pressler en el Texas Medical Center

Formatos de dirrección aceptados pero no son preferidos:

- Cruces de calles principales sin incluir información adicional sobre el lugar relativo en las calles, por ejemplo:
  - Fannin y Holcombe, no es tan claro como: al Sur de Holcombe sobre Fannin al otro lado de la Centro de Transportes del Centro Médico (TMC)
- Sólo el Código Postal
- Nombre del negocio (se agradeceria si ofrece alguna pista acerca de la ubicación)
  - Torre Central de la Universidad de Texas en el Centro Médico es mejor que solo Torre Central de la Universidad

Formatos de direcciones no aceptados

- Apartados aéreos o cajas de correo postal (Necesitamos la dirección del lugar donde usted estuvo realmente)

SECCION A- Persona que toma las decisiones en salud. Sitios comunes

Encuesta # _____

Por favor haga una lista de TODAS las direcciones donde usted va regularmente. Incuya la fecuencia con la que va a cada llugar y cuanto tiempo permaneces en cada sitio. Si usted trabaja en múltiples lugares durante el día, pero sin un horario flexible (por ejemplo haciendo entregas; instalaciones de cable o teléfono; o es contratado por días) por favor escoja Trabajo en el Paso 1, escriba Varios en el Paso 2 y complete los Pasos 3 y 4 como si estuviera en un solo lugar todo el día.

PASO 1 →	PASO 2 →	PASO 3
Tipo de lugar (encierre en un círculo el número que mejor describe este sitio)	**Dirección incluya la calle, Ciudad, Estado y Código Postal (es mejor usar direcciones, pero usted puede mencionar el cruce de calles más próximo o dibujar un mapa)**	**Frecuencia con que visita el lugar y tiempo que permanece en el sitio**
Casa ..... 1 Trabajo ..... 2 Escuela ..... 3 Cuidado de los niños ..... 4 Compra de comestibles ..... 5 Otro tipo de compras ..... 6 Tienda de conveniencia ..... 7 Servicio al vehículo (incluye poner gasolina) ..... 8 Entretenimiento ..... 9 Oficio religioso ..... 10 Visita Social ..... 11 Voluntariado ..... 12 Comida fuera de la casa ..... 13 Banco ..... 14 Lugar para comprar estampillas o enviar cartas y paquetes ..... 15 Otro ..... 88 Por favor explique: _____	Nombre del Sitio (opcional): _____ Dirección o mapa: Referencia del mapa clave: _____	Que tan a menudo va a este sitio? **(marque solo uno)** Todos los días ..... 1 Más de una vez al día ..... 2 Una vez en la semana ..... 3 De lunes a viernes todos los días ... 4 Más de una vez a la semana ..... 5 Una vez al mes ..... 6 Más de una vez al mes ..... 7 Cuánto tiempo emplea regularmente en este sitio en cada visita? _____ Minutos _____ Horas Desde hace cuánto ha ido a este lugar? _____ Meses _____ Años

Por favor utilice tantas páginas para la Sección A como sea necesario.

Página ____ de _____

SECCIÓN B – Persona que toma las decisiones en salud. Sitios de Atención en Salud Encuesta # _____

Por favor enumere lo lugares donde regularmente busca ayuda médica, recetas, o visita al doctor. Estos sitios deben ser donde usted va regularmente para atención en salud. Piense en los sitios en los que ha estado en el último año, como referencia, pero no es necesario limitar el tiempo a solo un año.

PASO 1 →	PASO 2 →	PASO 3
Tipo de lugar (encierre en un círculo el número que mejor describe este sitio)	**Dirección incluya la calle, Ciudad, Estado y Código Postal (es mejor usar direcciones, pero usted puede mencionar el cruce de calles más próximo o dibujar un mapa)**	**Frecuencia con que visita el lugar y tiempo que permanece en el sitio**
Cuidado de rutina ..... 16 Cuidado de enfermedad..... 17 Especialista..... 18 Medicina tradicional..... 19 Farmacia ..... 20 Dentista..... 21 Proveedor de Salud Mental. 22 Terapia física..... 23 Otro ..... 88 Por favor explique: _____	Nombre del Sitio (opcional): _____ Dirección o mapa: Referencia del mapa clave: _____	Que tan a menudo va a este sitio? **(marque solo uno)** Todos los días..... 1 Más de una vez al día..... 2 Una vez en la semana ..... 3 De lunes a viernes todos los días..... 4 Más de una vez a la semana ..... 5 Una vez al mes..... 6 Más de una vez al mes ..... 7 Una vez al año..... 8 Dos veces al año ..... 9 Tres o más veces al año..... 10 Cuánto tiempo emplea regularmente en este sitio en cada visita? _____ Minutos _____ Horas Desde hace cuánto ha ido a este lugar? _____ Meses _____ Años

Por favor utilice tantas páginas para la Sección B como sea necesario. Página ____ de _____

SECCIÓN C – PACIENTE. Sitios comunes Encuesta # _____

Enumere la frecuencia con que el paciente va a cada lugar y el tiempo que está en cada sitio, incluso si ya lo hizo en la Sección A. Si el paciente trabaja en multiples lugares pero sin un horario fijo (por ejemplo, haciendo entregas, instalaciones de cable o teléfono, o es contratado por dias) por favor escoja Trabajo en el Paso 1, escriba Varios en el Paso 2 y complete los Pasos 3 y 4 como si el paciente estuviera todo el día en ese lugar.

PASO 1 →	PASO 2 →	PASO 3
Tipo de lugar (encierre en un círculo el número que mejor describe este sitio)	**Dirección incluya la calle, Ciudad, Estado y Código Postal (es mejor usar direcciones, pero usted puede mencionar el cruce de calles más próximo o dibujar un mapa)**	**Frecuencia con que visita el lugar y tiempo que permanece en el sitio**
Casa.....1 Trabajo.....2 Escuela.....3 Cuidado de los niños.....4 Compra de comestibles.....5 Otro tipo de compras.....6 Tienda de conveniencia.....7 Servicio al vehículo (incluye poner gasolina).....8 Entretenimiento.....9 Oficio religioso.....10 Visita Social.....11 Voluntariado.....12 Comida fuera de la casa.....13 Banco.....14 Lugar para comprar estampillas o enviar cartas y paquetes.....15 Otro.....88 Por favor explique: _____	Nombre del Sitio (opcional): _____ Dirección o mapa: Referencia del mapa clave: _____	Que tan a menudo el paciente va a este sitio? **(marque solo uno)** Todos los días.....1 Más de una vez al día.....2 Una vez en la semana.....3 De lunes a viernes todos los días.....4 Más de una vez a la semana.....5 Una vez al mes.....6 Más de una vez al mes.....7 Cuánto tiempo emplea el paciente regularmente en este sitio en cada visita? _____ Minutos _____ Horas Desde hace cuánto ha ido a este lugar? _____ Meses _____ Años

Por favor utilice tantas páginas para la Sección C como sea necesario. Página ____ de _____

SECCIÓN D – PACIENTE: Sitios de Atención en Salud Encuesta # _____

Por favor enumere lo lugares donde el paciente regularmente busca ayuda médica, recetas, o visita al doctor. Estos sitios deben ser donde el paciente va regularmente para atención en salud. Piense en los sitios en los que el paciente ha estado en el último año, como referencia, pero no es necesario limitar el tiempo a solo un año.

PASO 1 →	PASO 2 →	PASO 3
Tipo de lugar (encierre en un círculo el número que mejor describe este sitio)	**Dirección incluya la calle, Ciudad, Estado y Código Postal (es mejor usar direcciones, pero usted puede mencionar el cruce de calles más próximo o dibujar un mapa)**	**Frecuencia con que visita el lugar y tiempo que permanece en el sitio**
Cuidado de rutina ..... 16 Cuidado de enfermedad ..... 17 Especialista ..... 18 Medicina tradicional ..... 19 Farmacia ..... 20 Dentista ..... 21 Proveedor de Salud Mental ... 22 Terapia física ..... 23 Otro ..... 88 Por favor explique: _____	Nombre del Sitio (opcional): _____ Dirección o mapa: Referencia del mapa clave: _____	Que tan a menudo el paciente va a este sitio? **(marque solo uno)** Todos los días ..... 1 Más de una vez al día ..... 2 Una vez en la semana ..... 3 De lunes a viernes todos los días .. 4 Más de una vez a la semana ..... 5 Una vez al mes ..... 6 Más de una vez al mes ..... 7 Una vez al año ..... 8 Dos veces al año ..... 9 Tres o más veces al año ..... 10 Cuánto tiempo emplea el paciente regularmente en este sitio en cada visita? _____ Minutos _____ Horas Desde hace cuánto ha ido a este lugar? _____ Meses _____ Años

Por favor utilice tantas páginas para la Sección D como sea necesario. Página ____ de _____

Appendix C. Human Subjects Approval from The University of Texas Health Science Center at Houston

THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON

The Committee for the Protection of Human Subjects
Office of Research Support Committees

7000 Fannin, Suite 750
Houston, TX 77030

Jennifer Rankin
UT-Health Science Center - Houston

NOTICE OF APPROVAL TO BEGIN RESEARCH November 02, 2007

HSC-SHIS-07-0482 - A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data

PROVISIONS: This approval relates to the research to be conducted under the above referenced title and/or to any associated materials considered by the Committee for the Protection of Human Subjects, e.g. study documents, informed consent, etc.

APPROVED: By Expedited Review and Approval

APPROVAL DATE: 10/10/2007 **EXPIRATION DATE:** 9/30/2008

CHAIRPERSON: Anne Dougherty, MD

Subject to any provisions noted above, you may now begin this research.

CHANGES: The principal investigator (PI) must receive approval from the CPHS before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the CPHS. **ALL PROTOCOL REVISIONS MUST BE SUBMITTED TO THE SPONSOR OF THE RESEARCH.**

INFORMED CONSENT: When informed consent is required, it must be obtained by the PI or designee(s), using the format and procedures approved by the CPHS. The PI is responsible to instruct the designee in the methods approved by the CPHS for the consent process. The individual obtaining informed consent must also sign the consent document. Please note that only copies of the stamped approved informed consent form can be used when obtaining consent.

HEALTH INSURANCE PORTABILITY and ACCOUNTABILITY ACT (HIPAA):
The study must meet all HIPAA research requirements. For compliance, guidelines see details on the Committee for the Protection of Human Subjects website at:
http://www.uth.tmc.edu/ut_general/research_acad_aff/orsc/cphs/guidelines/hipaa.htm

UNANTICIPATED RISK OR HARM, OR ADVERSE DRUG REACTIONS: The PI will immediately inform the CPHS of any unanticipated problems involving risks to subjects or others, of any serious harm to subjects, and of any adverse drug reactions.

RECORDS: The PI will maintain adequate records, including signed consent and HIPAA documents if required, in a manner that ensures subject confidentiality.

THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON

The Committee for the Protection of Human Subjects
Office of Research Support Committees

7000 Fannin, Suite 750
Houston, TX 77030

NOTICE OF APPROVAL TO IMPLEMENT REQUESTED CHANGES

HSC-SHIS-07-0482 - A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data
PI: Dr. Jennifer Rankin

Reference Number: 029890

PROVISIONS: Unless otherwise noted, this approval relates to the research to be conducted under the above referenced title and/or to any associated materials considered at this meeting, e.g. study documents, informed consent, etc.

APPROVED: By Expedited Review and Approval

CHANGE APPROVED: Spanish versions of Informed Consent and study instruments

APPROVAL DATE: 12/13/2007

CHAIRPERSON: Anne Dougherty, MD

Upon receipt of this letter, and subject to any provisions noted above, you may now implement the changes approved at this meeting.

CHANGES: The principal investigator (PI) must receive approval from the CPHS before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the CPHS. ALL PROTOCOL REVISIONS MUST BE SUBMITTED TO THE SPONSOR OF THE RESEARCH.

INFORMED CONSENT: Informed consent must be obtained by the PI or designee(s), using the format and procedures approved by the CPHS. The PI is responsible to instruct the designee in the methods approved by the CPHS for the consent process. The individual obtaining informed consent must also sign the consent document. **Please note that if revisions to the informed consent form were made and approved, then old blank copies of the ICF MUST be destroyed. Only copies of the appropriately dated, stamped approved informed consent form can be used when obtaining consent.**

UNANTICIPATED RISK OR HARM, OR ADVERSE DRUG REACTIONS: The PI will immediately inform the CPHS of any unanticipated problems involving risks to subjects or others, of any serious harm to subjects, and of any adverse drug reactions.

RECORDS: The PI will maintain adequate records, including signed consent documents if required, in a manner that ensures subject confidentiality.

THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON

The Committee for the Protection of Human Subjects
Office of Research Support Committees

7000 Fannin, Suite 750
Houston, TX 77030

NOTICE OF APPROVAL TO IMPLEMENT REQUESTED CHANGES

HSC-SHIS-07-0482 - A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data
PI: Dr. Jennifer Rankin

Reference Number: 031791

PROVISIONS: Unless otherwise noted, this approval relates to the research to be conducted under the above referenced title and/or to any associated materials considered at this meeting, e.g. study documents, informed consent, etc.

APPROVED: By Expedited Review and Approval

CHANGE APPROVED: Addition of Jeanne Hanks and Juana Subias on the study team.

APPROVAL DATE: 2/18/2008

CHAIRPERSON: Anne Dougherty, MD

Upon receipt of this letter, and subject to any provisions noted above, you may now implement the changes approved at this meeting.

CHANGES: The principal investigator (PI) must receive approval from the CPHS before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the CPHS. ALL PROTOCOL REVISIONS MUST BE SUBMITTED TO THE SPONSOR OF THE RESEARCH.

INFORMED CONSENT: Informed consent must be obtained by the PI or designee(s), using the format and procedures approved by the CPHS. The PI is responsible to instruct the designee in the methods approved by the CPHS for the consent process. The individual obtaining informed consent must also sign the consent document. **Please note that if revisions to the informed consent form were made and approved, then old blank copies of the ICF MUST be destroyed. Only copies of the appropriately dated, stamped approved informed consent form can be used when obtaining consent.**

UNANTICIPATED RISK OR HARM, OR ADVERSE DRUG REACTIONS: The PI will immediately inform the CPHS of any unanticipated problems involving risks to subjects or others, of any serious harm to subjects, and of any adverse drug reactions.

RECORDS: The PI will maintain adequate records, including signed consent documents if required, in a manner that ensures subject confidentiality.

THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON

The Committee for the Protection of Human Subjects
Office of Research Support Committees

7000 Fannin, Suite 750
Houston, TX 77030

NOTICE OF APPROVAL TO IMPLEMENT REQUESTED CHANGES

March 4, 2008

HSC-SHIS-07-0482 - A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data
PI: Dr. Jennifer Rankin

Reference Number: 032774

PROVISIONS: Unless otherwise noted, this approval relates to the research to be conducted under the above referenced title and/or to any associated materials considered at this meeting, e.g. study documents, informed consent, etc.

APPROVED: By Expedited Review and Approval

CHANGE APPROVED: Revised survey and Address Log (English/Spanish); and addition of Lon Rankin for data collection.

APPROVAL DATE: March 4, 2008

CHAIRPERSON: Anne Dougherty, MD

Upon receipt of this letter, and subject to any provisions noted above, you may now implement the changes approved at this meeting.

CHANGES: The principal investigator (PI) must receive approval from the CPHS before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the CPHS. ALL PROTOCOL REVISIONS MUST BE SUBMITTED TO THE SPONSOR OF THE RESEARCH.

INFORMED CONSENT: Informed consent must be obtained by the PI or designee(s), using the format and procedures approved by the CPHS. The PI is responsible to instruct the designee in the methods approved by the CPHS for the consent process. The individual obtaining informed consent must also sign the consent document. **Please note that if revisions to the informed consent form were made and approved, then old blank**

copies of the ICF MUST be destroyed. Only copies of the appropriately dated, stamped approved informed consent form can be used when obtaining consent.

UNANTICIPATED RISK OR HARM, OR ADVERSE DRUG REACTIONS: The PI will immediately inform the CPHS of any unanticipated problems involving risks to subjects or others, of any serious harm to subjects, and of any adverse drug reactions.

RECORDS: The PI will maintain adequate records, including signed consent documents if required, in a manner that ensures subject confidentiality.

THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON

The Committee for the Protection of Human Subjects
Office of Research Support Committees

6410 Fannin, Suite 1100
Houston, TX 77030

TO: Jennifer Rankin

FROM: Krislyn Gibson
Office of Research Support Committees

DATE: August 06, 2008

RE: HSC-SHIS-07-0482
"A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data"

Reference number: 037336

Dear Ms. Rankin

This is a confirmation letter that your request to close your study has been received and processed by the Committee for the Protection of Human Subjects. It has been determined that no further IRB action is required.

Please feel free to contact the Committee for the Protection of Human Subjects (CPHS) if you have any additional questions or concerns at (713) 500-7943.

Appendix D. Approval Letters from the Harris County Hospital District Research Office

Harris County Hospital District

service FIRST

We will create a healthier community and be one of America's best community-owned healthcare systems.

Research and Sponsored Programs
2525 Holly Hall, Room 1870
Houston, Texas 77054
Tel: 713.566.6914
Fax: 713.440.1304
research@hchd.hmc.edu

January 31, 2008

Jennifer Rankin, MHA, MS
Student
University of Texas Health Science
Department of Health Information Sciences
7000 Fannin Street, Suite 600
Houston, Texas 77030

RE: HSC-SHIS-07-0482: A GIS-based Exploratory Study of the Creation of Primary Care Service Areas Using Activity Space Data

APPROVAL VALID FROM 2/1/08 TO 9/30/08

Location: Settegast Community Health Center

Dear Ms. Rankin

The Harris County Hospital District is pleased to inform you that the research protocol named above has been approved for implementation. The study may not continue after the approval period without additional IRB and HCHD review and approval for continuation. It is your responsibility to assure that this study is not conducted beyond the expiration date.

The Principal Investigator must received approval from the IRB and HCHD before initiating any changes, including those required by the sponsor, which would affect human subjects, e.g. changes in methods or procedures, numbers or kinds of human subjects, or revisions to the informed consent document or procedures. The addition of co-investigators must also receive approval from the IRB and HCHD.

Attached is the approved and validated consent form. You must discard all previous informed consent documents being used and replace them with this stamped validated version. **Please be aware that only copies of the appropriately dated, stamped IRB and HCHD approved informed consent form can be used when written informed consent is required.**

Sincerely,

Diana Mouton

Diana Mouton, RN
Manager, Research and Sponsored Programs
Harris County Hospital District

cc: Carlos Vallbona, MD
Robert Trenschel, MD, Interim Administrator
Michelle Fowler, CNO
Neal Kachalia, Director
Lynsey Astley, Interim Manager
Research Office

Harris County Hospital District

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P.O. BOX 66769, Houston, TX 77266-6769

www.hchdonline.com

January 3, 2008

Jennifer Rankin, MHA, MS
Doctoral Candidate
Principal Investigator
Health Information Sciences
University of Texas Health Science Center at Houston
7000 Fannin, Suite 600
Houston, Texas 77030

RESEARCH STUDY CHARGES

IRB Protocol Number:	HSC-SHIS-07-0487
Principal Investigator:	Jennifer Rankin, MHA, MS
Protocol Title:	A GIS-based Exploratory Study of the Creation of Primary Care Service Areas Using Activity Space Data
Location:	Settegast Community Health Center

Study Activities:

- An estimated 384 patients will be recruited for this unfunded study. In addition, a pilot of 50 patients will be necessary to insure there are no problems with the data collection instruments and field procedures.
- The purpose of this study is to understand how people choose their health care providers, and how the location of the health care provider fits into their daily travel to work, school, errands, entertainment, and other regular activities.
- Two data collection instruments will be used for this study. First, a Health Care Choice Survey will be administered to understand what factors are most important to patients when choosing a health care provider. Second, an Activity Space Log will be used to collect address information about the places where the patient regularly spends their time.
- The total amount of time for subjects to complete this study is approximately 20-60 minutes.
- Prior to study implementation, study team must meet with the Nurse Manager of the clinic to discuss the study and implementation in the area.
- The study team will perform all direct study-related activities including recruitment, questionnaire dissemination, data collection, and analysis.

We improve our community's health by delivering high quality health care to Harris County residents and by training the next generation of health professionals.

Harris County Hospital District

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PO Box 66769, Houston, TX 77266-6769

www.hchd.com

- The PI must acknowledge HCHD's support of this research project in the final report and all publications; provide a copy of all reports and publications to the HCHD Research Office; and present a summary of findings to the Hospital District Administration.

HCHD services and/or resources to be utilized for this study:

Services	Charges	Subjects	Freq Services	Total Freq For Study	In-Kind Contributions	Estimated Total Charges
No indirect charges						
Tax charges						
TOTAL						

PLEASE NOTE:

The HCHD Office of Physician Services at 713.873.2309 must pre-bill all research staff. This agreement has estimated frequency of services; however, billing of services will be for actual utilization.

Should you have any questions regarding this agreement, please contact Diana Mouton, Program Manager, Research & Sponsored Programs, at 713.566.4228. This financial agreement does not constitute approval of the study, merely an agreement of the fees and charges.

Approval for this study is still pending administrative review.

Investigator/Financial Representative — Date: 1/4/08

Diana Mouton — HCHD Representative — Date: 1-8-08

cc: Linda Staples, Billing & Patient Account Manager

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Harris County Hospital District

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Research and Sponsored Programs
2525 Holly Hall, Room 1870
Houston, Texas 77054
Tel: 713.566.6904
Fax: 713.442.1384
research@hchd.tmc.edu

March 6, 2008

Jennifer Rankin, MHA, MS
Student
University of Texas Health Science
Department of Health Information Sciences
7000 Fannin Street, Suite 600
Houston, Texas 77030

RE: HSC-SHIS-07-0482: A GIS-based Exploratory Study of the Creation of Primary Care Service Areas Using Activity Space Data

APPROVAL VALID FROM 3/6/08 TO 9/30/08

Location: Settegast Community Health Center

Dear Mr. Rankin:
The Harris County Hospital District is pleased to inform you that the research protocol named above has been approved for implementation with noted revision. The Committee for the Protection of Human Subjects for The University of Texas Health Science Center at Houston approved this revision on March 4, 2008.

The study may not continue after the approval period without additional HCHD review and approval for continuation. It is your responsibility to assure that this study is not conducted beyond the expiration date.

A brief report, including overall findings of the research and number of HCHD patients included in the study, should be submitted to the Hospital District Research Manager at the completion of the project. This report conveys to the public the importance of HCHD in clinical research advancements.

Sincerely,

Diana Mooton, RN
Manager, Research and Sponsored Programs
Harris County Hospital District

xc: Carlos Vallbona, MD
Robert Trenschel, MD, Interim Administrator
Michelle Fowler, CNO
Neal Kachalia, Director
Rita Patel, Administrative Director
Research Office

Appendix E. Letter of Support from Settegast Health Center

Harris County Hospital District

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We will create a healthier community and be one of America's best community-owned healthcare systems.

P.O. BOX 66769, Houston, TX 77266-6769

www.hchdonline.com

September 26, 2007

Jennifer L. Rankin, MHA, MS
Doctoral Candidate
School of Health Information Sciences
The University of Texas Health Science Center
7000 Fannin, Suite 600
Houston, Texas, 77030

Dear Ms. Rankin,

We are delighted to support this very important proposal, **A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data**, as part of your advancement to candidacy in the doctoral program at The University of Texas Health Science Center School of Health Information Sciences.

The Harris County Hospital District is an excellent test bed for this very important research proposal. In 2005, the Hospital District removed the policy assigning patients to specific health centers. The strategy and specific aims outlined in this proposal are aligned with our mission and will be very important to improve our understanding of how geography plays a role in choosing a health care provider. We believe that this research will help us to identify and understand what factors lead patients to choose to come to Settegast Health Center and to truly understand what area the health center serves.

Specifically, we will commit to the following:

1. Provide space in the waiting room, including table and chairs, for you to collect the data necessary for your research
2. Inform our staff of your research plan and when you will be present in the health center

Based on your presentations to our health center leadership including the Patient Council, we understand that upon completion of the data analysis you will commit to:

1. Provide the health center with maps highlighting the service area based on our patients' activity spaces and any papers written
2. Make a final presentation to the Patient Council regarding your findings.

Sincerely,

Ora Roberts Director

Ora Roberts RN, Director
Settegast & E.A. "Squatty" Lyons Health Centers

Louise Terrill M.D., Co-Medical Director
Settegast Health Center

We improve our community's health by delivering high quality health care to Harris County residents and by training the next generation of health professionals.

Appendix F. Field Manual

Section 1- Flowchart of patient interaction

Section 2- Patient Recruitment- Detailed

Section 3- Patient Consent- Detailed

Section 4- Data Collection- Detailed

Section 5- Health Care Choice Survey- Detailed description of questions and rationale

Section 6- Activity Space Log- Detailed description of questions and rationale

Section 7- Finishing with the Subject

Section 8- Protocol for Handling Subjects Who Took the Form Home to Complete

Section 9- Administrative Details

Section 10- Key Map instructions

(Not included in dissertation since it is copyrighted material)

Recruit Subject

18+ years old

Patient today or legal guardian of patient today-

Patient means: Seeing doctor

Getting prescription

Having lab work done

Informed Consent (IC)

1. Give subject two copies of IC in their language of choice
2. Talk the subject through the IC
3. Give the subject time to read the IC on their own
4. Give the subject the opportunity to ask questions
5. Have the subject sign both copies of IC
6. You sign both copies of IC
7. Put one copy of IC into completed forms box
8. Get next Survey number from Project Tracking Sheet- put your initials in the column "Consent Signed and Returned"
9. Write Survey number on second copy of IC
10. Give this copy back to the subject

Health Care Choice Survey

1. Give subject Health Care Choice Survey in subject's language of choice
2. Write the survey number on the top of the first page only (will number the rest when subject is done)
3. Ask the subject if they would like your help to complete the form
4. When they complete the survey, verify whether they should have completed the form by checking questions 3 and 4
    a. If they answered "Myself- 1" to question 3, they should have completed the entire survey
    b. If they answered "Someone Else-2" to question 3 and then "Yes- 1" to question 4, they should have completed the entire survey
    c. If they answered "Someone Else-2" to question 3 and then "No- 2" to question 4, they should NOT have completed the entire survey

1

i. Discard and thank them for participating
ii. Do not give them an incentive

5. If they should have competed the survey, write the survey number at the top of each page
6. Review the survey for missing or unclear responses and make sure each question has only one response- USING A RED PEN, INITIAL ANY CHANGES OR CLARIFICATIONS YOU MAKE
7. Put your initials under the "Survey Completed and Verified" column of the Project Tracking Sheet for that survey number
8. Pull an Activity Space Log in the subject's language of choice and write the survey number on both pages
9. Put the completed Health Care Choice Survey in the completed forms box
10. Take a $5 incentive card (black edges, 3 digit code) and write the 3 digit code in the "$5 Incentive Received" column of the Project Tracking Sheet
11. Give the subject the card

Activity Space Log

12. Go through the Worksheet with the subject to see how many pages they think they will need for each section
    a. If the subject is the patient, go through the worksheet once
    b. If the subject is not the patient, go through the worksheet twice
        i. First time through worksheet= Sections A and B- Health Care Decision Maker
        ii. Second time through the worksheet = Sections C and D- Patient
    c. Pull the number of pages the subject should need for each section and take the time to circle the type of location and write the name of the location on the page if the subject told it to you
    d. Highlight the time questions and be sure to make sure they know to give number answers (don't just circle hours or minutes for example)
13. Ask the subject if they would like to complete the form on their own or with your help
14. Help the subject use the phone books and Key Maps as needed

15. When the subject is finished with the Activity Space Log, look through all the pages to make sure you understand the information they have provided (legibility, make sure that they haven't missed any regular locations, etc.)
    a. If there seem to be obviously missing items (no home address or no place for grocery shopping) walk them through the form to jog their memory or make sure nothing is truly missing
16. Write the survey number on all pages
17. Staple the completed Activity Space Log together
18. Put your initials under the "Log Completed and Verified" column of the Project Tracking Sheet for that survey number
19. Place in the completed forms box
20. Take a $10 incentive card (no black edges, 5 digit code) and write the 5 digit code in the "$10 Incentive Received" column of the Project Tracking Sheet
21. Give the subject the card- pull it out of the envelope and tell them it starts losing money if they do not use it by next October

IF THE SUBJECT CANNOT COMPLETE THE ACTIVITY SPACE LOG WHILE AT THE HEALTH CENTER

22. Let the subject know they can bring the log back to the health center while we are there (and receive their incentive) or they can mail the log back in (and receive the incentive by mail)
    a. If they want to return to the health center show them the days that the research team will be there to collect logs and hand out incentives
    b. If they will mail the forms back in:
        i. Collect the contact information as listed on the Contact Information for Address Logs Taken Home sheet
            1. Write the survey number on the sheet
            2. Get the subject's name
            3. Get the subject's mailing address, city and zip code
            4. Ask the subject if they will provide a contact phone number which will only be used if the completed form is not received- THIS IS OPTIONAL

5. Write "Yes" in the "Mail Incentive?" column

ii. On the Project Tracking Sheet, write "Yes" in the "Address Log Taken Home?" column

iii. On the Project Tracking Sheet, complete the "Contact Info Provided?" column

iv. On the Project Tracking Sheet, leave the last two columns blank

v. Take a large manila envelope and place an address label on it

vi. Write the return address on it:

[redacted]

vii. Count the total number of pages they are taking with them

viii. Put the total postage needed for that many pages on the envelope

23. Thank the subject for participating.

Patient Recruitment

Subjects for this research are patients who have come to this health center today for health care or legal guardians of children or dependent adults who are at the health center for health care. We will recruit from the people who are in the waiting room. A suggested script is:

> "Would you be interested in helping out with student research, today? We are looking into why patients choose to come to Settegast Health Center for their health care needs. We are particularly interested in how geography plays a role in making that decision."

Important things to keep in mind:

1. We are interested in why patients have come to the health center- that means that the people participating must be a patient or a parent/ legal guardian of a minor or dependent adult patients who makes decisions about where the patient receives health care.

2. All subjects must be aged 18 years or older.

3. Patients/ legal guardians can only participate once per person seeking health care that day at the health center. That means they can complete the form for themselves once, and once for each patient for whom they are the guardian and health care decision maker. If they return to the health center for a second visit while we are still collecting data they are not eligible to participate again.

    a. A parent who has brought a child to see the doctor, for example, who is also being seen by the doctor today can complete the forms twice and receive two incentives. This should not be encouraged but only agreed to if the subject asks. When this happens be sure the Principal Investigator is involved in the data collection.

4. We do not want to know why they are at the doctor, just why they chose to come there. We will not be asking any health information.

5. We will not be sharing any individual information with the administrators/ staff of Settegast Health Center, HCHD or anyone. All information provided will be kept strictly confidential. All information will be combined with other patient information before it is shared with Settegast or used in any publication.

6. They will have the option of completing the forms on their own or sitting down with one of us to help them complete the form.

7. **They will receive an incentive upon completion of the forms (see below for amounts) but we should not use this in our initial approach to see if they will participate.**

8. They will be asked to complete two forms.
    a. Survey
        i. The survey should take only 5-10 minutes to complete- it asks about health care use and choice of provider.
        ii. There are some demographic questions as well.

iii. There should be no problem completing it while at the health center.
iv. They will receive a $5 gift card to Fiesta Mart when this is returned, completed and verified.

b. Address log
   i. The address log asks about all of the places where the patient/ decision maker regularly spend time. Because this can be a few or many addresses it could take 5-45 minutes to complete.
   ii. They may have difficulty completing this form while at the health center. They will be given the option of taking it home to complete and mail back in (they will be given a self-addressed, stamped envelope) or staying longer at the health center to complete.
   iii. They will receive a $10 Fiesta Mart gift card when this is completed, returned, and verified. If they take the form home to complete, this means they will either have to provide some contact information or return to the Health Center at a later date to collect their incentive.

9. Both the Health Center Administrator (Ora Roberts), the co-medical director (Louise Terrill) and the Settegast Patient Council have approved this research.

10. Dr. Bayona, who heads the UT program that staffs the Health Center, has approved this research.

11. The UT Committee for the Protection of Human Subjects and the Harris County Hospital District Research and Sponsored Programs Office have all approved this research.

Patient Consent

Once the subject has agreed to participate, they must be given a formal informed consent form to sign. But before we go through the entire consent procedure, ask these questions:

> Are you here seeking health care? If not, are you the health care decision maker, including making the decision where the patient goes for health care, for a minor or dependent adult patient who is here seeking health care today? If not, they cannot participate.

If they answered yes to either one of those questions, ask if they are 18 years old or older. If yes, then they can participate. If not, they will not be able to participate in the study.

If they answered yes, then the subject should be given the choice to be consented in English or Spanish. If the subject is not comfortable with either of these languages, the subject will not be allowed to participate.

You should give the subject two copies of the consent form in the language of their choice. You should go through the consent form verbally as follows (use as guideline). Although you should become comfortable going through all of this information on your own, I have highlighted the things that are important not to skip:

> You are agreeing to participate in a student research project called, "A GIS-based Exploratory study of the Creation of Primary Care Service Areas Using Activity Space Data." It is not necessary for you to understand what the title means- it is just the official title of the study. I'll be happy to explain the title further if you want more explanation.
>
> This research is being conducted by a student for her dissertation in order to complete her PhD. She is looking into whether the area where patients regularly spend their time, like where they live, work and go shopping, influences the health care providers they choose to go to for their health care.
>
> To gather the information she needs for her research, she is asking patients at Settegast Health Center to complete two forms. Participation in this research is completely voluntary- no one will be forced to participate and if you choose not to participate it will not affect your ability to get health care from Settegast Health Center. If you choose to participate and then change your mind, you may withdraw at any time.
>
> This research has been approved by Settegast's Administrator, Medical Director, and the Patient Council. Also, the research has been approved by the HCHD Research Office. Last, UT's Urban Health Program and the UT Office of Research have also approved this research.
>
> At most, minimal harm can come to you by participating in this research project. By participating in this project you will be agreeing to tell us all of the locations where you regularly spend your time and seek health care. This includes locations where the use of alcohol or illicit drugs takes place. Names of locations and the reason for the visit are not required as a part of this research. These addresses will be kept strictly confidential.

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completed forms will be locked in a desk behind locked doors and all data will be stored on a password protected computer in a locked office. The largest risk to you is that these addresses will become known. To further minimize your risk, we will not be collecting names as a routine part of this research. Also all addresses for a single person will be aggregated with all of the addresses for all other participants before results are shared or published.

For participating in the research, you will be given gift cards to Fiesta Mart. For completing the Health Care Choice Survey, you will receive a $5 gift card. For completing the Activity Space Log, you will receive a $10 gift card for a total of $15 worth of gift cards.

The completion of the survey should take 5-10 minutes so you should not have a problem completing the survey while you are at the health center. This survey asks about how the patient regularly uses health care and what factors are important to the patient when choosing a health care provider.

Because you must provide location information for all of the places where you regularly spend time and seek health care, the address log could take much longer to complete. People who have completed this form before have taken up to 45 minutes to complete it. The length of time to complete the form will depend on the number of places you need to report and how much of that information you know or have available. To help you complete this form, phone books and area maps are provided. You will have the option of giving the name of the location, drawing a map, providing a written description of the location, providing an address or any combination of those options.

You will also be given the option of taking the address log home to complete. If you choose to take the form home, you will have to decide if you will can return to the health center to turn in your forms and receive your incentive or if you will mail in the forms and receive your incentive through the mail. In either case, you will be asked to provide your name and contact phone number so we can call to follow-up in we do not receive the form in the mail. This is of course optional, but we want to be sure you receive your incentive for participating. If you provide a phone number, the researcher will not mention that your participation in this research occurred at Settegast Health Center- only that you participated in student research in the community. If you do not want to provide this contact information but want to receive the remainder of your incentive, you will have to return to the health center on a set schedule of days when the researcher is available to give the incentives. If you decide to mail the forms back to us, we will need your name and mailing address so that we can send your incentive to you.

After verbally consenting and giving the subject time to read over the consent, ask these questions:

Do you have any questions about the research?

Do you have any questions about what will be expected of you?

Do you still want to participate in this research?

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Guidelines to finish the verbal consent:

> If so, please sign two copies of the consent form. We will also sign two copies and then provide an original for you to keep. On your copy of the consent form, we will provide your survey number. You can use this number if you call the researcher with any questions about your participation or would like to withdraw your information from the study at any time.

++++++++++++++++

Once the patient signs the forms, the consenter or the researcher should sign both copies of the forms.

The consenter should then get the next survey number from the Project Tracking Sheet and write it on the consent form that goes to the subject. Give the patient the original consent form with both signatures and the survey number. On the tracking sheet, in the row for that survey number, the consenter should initial under the "Consent Signed and Returned Column" and place the second copy of the consent form in the research files.

Data Collection

Health Care Choice Survey

Once the subject has been consented, they should complete the Health Care Choice Survey. They should be given a form in English or Spanish based on their choice. The consenter should then take the time to write the survey number on the first page of the survey.

The subject should also be given the option of completing the form on their own or with the help of the researcher or Spanish speaking assistant.

Please see the Health Care Choice Survey section for more information about each question.

Because the only people completing the survey should be patients 18 years old or older or parents/ legal guardians 18 years old or older of minor or dependent adult patients, the consenter should watch, if possible, as the person fills out the first 4 questions of the survey.

Patient means: Seeing doctor
Getting prescription
Having lab work done

If they get to Question 4 and have answered "2- Someone Else" to Question 3 and then "2-No" to Question 4, they should stop taking the survey. They will not get an incentive even if they continue past this point so stopping them early is in all of our best interests.

When the subject completes the survey, the consenter should review the form for mistakes, omissions, and clarifications. When checking the survey, use a **red pen** and put your initials by any changes or clarifications you make on the form.

First, check questions 3 and 4 as above to make sure they should have completed the survey. If they should have completed the survey, write the survey number on each page if the subject has not already done so.

Second, make sure every question is answered, or if it is skipped where appropriate.

- Question 3- If they answer "1- Myself" Question 4 should be skipped.
- Question 3- If they answer "2- Someone Else" Question 4 should be answered.

- Question 4- If they answer "2-No" they should have stopped taking the survey. They should not get an incentive.

- Question 14- If they answer either "1- Yes" or "99- Don't Know" Question 15 should be answered.
- Question 14- If they answer "2- No" Question 15 should be skipped.

- Question 3- If they answer "1- Myself", they should stop after question 65.
- Question 3- If they answer "2- Someone Else", they should continue after question 65 to answer the remaining questions.

Third, make sure that every question has only one answer.

Fourth, make sure that each answer is clearly marked.

After reviewing the survey and getting clarification from the subject, put your initials in the "Survey Completed and Verified" column on the Project Tracking Sheet. Pull out an Activity Space Log initial packet in the language of the patient's choice and write the survey number on the first page. Put the completed survey in the completed forms box.

Then, take a $5 gift card (the ones with the black edges and 3 digit code written on the envelope) and write the 3 digit code in the "$5 Incentive Received" column on the Project Tracking Sheet.

You may want to pull the card out of the envelope and show them it is a Fiesta Gift Card. Let them know that the card starts losing value if it is not used by October 2008.

Activity Space Log

After the subject has completed the Survey and received their first incentive, they should be given the initial Activity Space log packet. They should receive the English or Spanish form according to their wishes. The consenter should take the time to write the survey number on the top of both pages of the initial address log packet.

Everyone participating will answer sections A and B.

They will only answer sections C and D if they are participating because they are the decision maker for a patient at the health center and they are not the patient. Questions C and D pertain to the patient if the subject is not the patient. One way to clarify this is to look at the survey. If they answered "2- Someone Else" to Question 3 and then "1-Yes" to Question 4, they should complete sections C and D. If they answered "1- Myself" to Question 3 they should only answer sections A and B.

IF THE SUBJECT IS COMPLETING MULTIPLE FORMS, (i.e., one for themselves as a patient and one or more for minor/ dependent adult patients) they only need to complete sections A and B one time. Let the Principal Investigator handle/ be involved in this process. We should write all the survey numbers pertinent to this person on each page of sections A and B. They will still receive however many incentives they are entitled to as if they had completed separate forms for each participant. As mentioned before, completing multiple surveys is not recommended.

The subject should take as many pages as they need for all sections. There is a worksheet to use to help them figure out how many sheets they will need for each section. We will need to do the worksheet once for sections A and B and a second time, if necessary, for sections C and D, as marked on the form. Once you have figured out how many pages they need, pull the correct number of pages for each section and take the time to:

1. Circle the location type for that page
2. Write the name of the location if they told you
3. Highlight the three questions on the right side of the page and
4. Let them know to use numbers for how long they spend there and how long they have been going there

The subject should also be given the option of completing the form on their own or with our help.
Please see the Activity Space Log section for more information about each question.

The subject can use the phone books and Key Maps to help them look up locations if they need to. These resources should stay close to the research table so that everyone can get access to them.

The subjects should be told that we would appreciate as much address information as possible, but if they don't know the address, they have a variety of ways to report the location:

- Name of location + some sort of location information (Target off of I-10 at Taylor)
- Hand drawn map of location with street names
- The closest two cross streets (not major roads but actual cross streets) with some sort of descriptor (SW corner of Fannin/ Pressler intersection)
- Address
- Key map reference (page number and grid cell- UCT is on page 532 in the M cell= 532M)

We would like as many subjects as possible to complete the log at the health center so we should not broadcast that they can take the log home to complete. If the subject is hesitant to complete the log at all, they should be told that they will be given the opportunity to take this home to complete if they need to but this should not be encouraged. They will only receive the incentive when the completed form is received by the researcher. If they take the form home they will have to make a decision whether to receive their incentive by bringing the survey back to the health center on a set schedule of days or to provide some contact information so that their incentive can be mailed to them. They will also need to decide if they will provide the researcher with a phone number to call if they do not return the form in a timely manner.

Completing the log at the health center
If the subject is able to complete the address log while at Settegast, review the form to make sure address/ location information is complete and legible. Make sure they circled one or more location types in Step 1. Finally make sure they have answered all three parts of step 3. The first part should have only one answer circled, the second part should have a length of time they spend at that location during each visit, and the third part should indicate how long they have been coming to the location. For the second and third parts the unit of measure should be circled (minutes/ hours or months/years). When checking the activity space log, use a red pen and put your initials by any changes or clarifications you make on the form.

Take some time to make sure their responses make sense and if you feel there are missing locations, go through it again with them to help them remember other locations. Remind them that it is important to know all the locations where they regularly spend time. If they indicate there is a place missing that they do not want to report, make a note of that on the form.

Once you have verified the address log, staple the pages together, count the number of pages and fill in the page numbers at the bottom of each page. Write the survey number at the top of every page if not already done. Then put the completed log in the completed forms box.

Put your initials in the "Log Completed and Verified" column on the Project Tracking Sheet. Write "NO" under "Address Log Taken Home" and "N/A" under "Contact Info Provided."

Then, take a $10 gift card (the ones without the black edges and with a 5 digit code written on the envelope) and write the 5 digit code in the "$10 Incentive Received" column on the Project Tracking Sheet.

> You may want to pull the card out of the envelope and show them it is a Fiesta Gift Card. Let them know that the card starts losing value if it is not used by October 2008.

Subject takes the log home to complete

If the subject is not able to complete the address log while at Settegast, we need to collect information and provide the stuff they will need to complete the address log at home.

1. Explain to the subject that they can take the log home to complete.
2. They can choose to complete the log at home and return it in person to the researcher on a set schedule of days and also pick up their incentive or they can provide some contact information so that we can mail the incentive to them when we receive the completed form. If they are going to mail the form back to us, the minimum information we need to mail the incentive to them is:
    a. Name
    b. Mailing Address (street number, street name, city and zip)
    c. Optional: phone number for researcher to call to follow-up if the form is not received.
3. If they choose to take it home and mail it back, we need to estimate how many pages they will need. If you have not already done so, help them complete the worksheet and put together a packet for them to take home. The packet should include the pages they have already completed and blank pages for the locations they still need to complete.
4. On the Project Tracking Sheet, write "YES" under "Address Log Taken Home?"
5. Even if they do not provide address information write "YES" under the "Contact Info Provided" column on the Project Tracking Sheet. This column is only meant to prompt you to remember to have them complete the Contact Information for Address Logs Taken Home sheet.
6. On the Contact Information for Address Logs Taken Home sheet, write their survey number and then ask them for the contact information. If they do not provide any contact information write N/A on their line and put a "NO" under the "Mail Incentive?" column. If they do provide contact information, write "Yes" in the "Mail Incentive?" column.
7. Provide them with an envelope:
    a. Make sure the address label and return address are attached/ clearly listed.
        i. Return address: [redacted]
    b. DO NOT SEAL THE ENVELOPE and ask the subject not to seal it until they mail it.
    c. Affix appropriate amount of postage (remember to count the sample page) using the chart on the next page

2 oz	envelope + up to nine pages	$0.97	2 forever stamps + 0.15
3 oz	envelope + 10- 15 pages	$1.14	2 forever stamps + 0.32
4 oz	envelope + 16- 21 pages	$1.31	3 forever stamps + 0.08
5 oz	envelope + 22- 27 pages	$1.48	3 forever stamps + 0.25
6 oz	envelope + 28- 34 pages	$1.65	4 forever stamps + 0.01
7 oz	envelope + 35- 40 pages	$1.82	4 forever stamps + 0.18
8 oz	envelope + 41- 46 pages	$1.99	4 forever stamps + 0.35
9 oz	envelope + 47- 52 pages	$2.16	5 forever stamps + 0.11
10 oz	envelope + 53- 58 pages	$2.33	5 forever stamps + 0.28
11 oz	envelope + 59- 65 pages	$2.50	6 forever stamps + 0.04

Health Care Choice Survey

Question 1. This will be used to calculate patient's age

Questions 2-4. We need to know this because some people will be completing this form for someone else. People should only complete this form if they are 18 years old or older, are the patient or makes the health care decisions for the patient. If the patient makes their own decisions, is 18 years old or older but needs help completing the form then that should be done by one of the research staff.

Question 2. Is the person completing the form seeking health care at the health center today?

Question 3. Is the person filling out the form filling it out because they are the person seeking health care at the health center or for someone else seeking health care at the health center? Technically, one person could complete multiple forms if they are seeing the doctor and are the health care decisson maker for another person seeking health care at the health center that day.

Question 4. This question determines if this person should be completing the survey for someone else should be doing so. If they answer NO, they should not be participating and should be asked to stop. No incentive will be given.

Questions 5-10. It is important to understand how the patient uses health care- are they someone who goes to one place or several places? Do they go for care at the emergency room for a primary care problem? And how often do they come to Settegast?

Question 5. This includes all types of doctors- primary care and specialists.

Question 6. Trying to see if the patient has ever gone to the ER inappropriately.

Question 7. Does the patient have a medical home?

Question 8. Is Settegast Health Center the medical home?

Question 9. Frequency of visits over a long period could mean that a patient might not clearly remember why they chose the health center as a place of care in the first place.

Question 10. see Question 9

Questions 11-12. These questions are meant to find out if the patient/ decision maker feels like they have a choice in choosing providers and if they feel the need to make a decision of provider before going, or if they know where they will be going without making that decision each time.

Question 11. Do they feel like they have options in health care providers?

Question 12. Did they make a choice today or did they think they only had this one option?

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Questions 13-15. These questions are meant to see how important the location of the health center is in the decision making process and if home anchors that choice of location.

Question 13. Location of a health care provider is important when choosing where to go.

Question 14. Location is the first and foremost reason for choosing a health care provider. Please note that this means from the entire roster of health care providers- not from the few health care providers on an approved list from an insurance company or from those the patient thinks will see them if they are uninsured or for low-cost. In those types of cases, insurance status is the most important reason. The patient should only go on to question 15 if they answered Yes or Don't Know to question 14.

Question 15. Not only is location important- the reason it is important is because it is close to the patient's home. Not because it is close to any other location or specifically not in another location. This question should be skipped if the patient said NO to question 14.

Question 16. I am trying to see where the patient came from to get to the health center. This question is trying to see whether they care coming from a location other than home to get to the health care provider. They should choose only one response.

Questions 17-35. These questions are trying to see what factors were most important when choosing to come to Settegast Health Center today. Patients will be asked to provide a level of response on a Likert scale or to indicate that that option is not application to them. Each question should have one answer.

Question 17. This is specific to the PATIENT'S home.

Question 18. This is to see if the comprehensive care provided by the health center is important.

Question 19. This is to see if proximity to a current school or child care location is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 20. This is to see if family or friend's recommendation is important.

Question 21. This is to see if proximity to a former work location is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 22. This is to see if a decision was made for this visit. Likely if it is a place that they have come to for a while, the actual reason for choosing the location will be masked.

Question 23. This is to see if it is not necessarily the location of the health center but because it is in between locations or is easily accessible by public transportation from important locations.

Question 24. This is to see how much insurance companies influence choice of provider.

Question 25. This is to see if proximity to a former school or child care location is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 26. This is to see if cost is an important factor in choosing a health care provider.

Question 27. This is to see if quick appointment availability is an important factor in choosing a health care provider.

Question 28. This is to see if patients are choosing doctors who schedule around the patient's schedule rather than the other way around.

Question 29. This is to see if the patients are choosing providers because they don't have health insurance.

Question 30. This is to see if how the patient feels about the doctor is important. They might be seeing the doctor for the first time that day so may not be able to answer this question.

Question 31. This is to see if proximity to a former residence is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 32. This is to see is patients are choosing providers based on language spoken.

Question 33. This is to see if proximity to a current work location is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 34. This is to see if how the patient feels about the clinic staff is important. They might be at the clinic for the first time that day so may not be able to answer this question.

Question 35. This is to see if they were told where to go by an insurance company or the Hospital District.

Questions 36-50. These questions are trying to see what factors would be most important when choosing their ideal health care setting. This is important because they may not feel they have much choice when they come to Settegast. What are they truly looking for versus what have they settled for? Patients will be asked to provide a level of response on a Likert scale or to indicate that that option is not application to them. Each question should have one answer.

Question 36. This is to see if how the patient feels about the doctor is important.

Question 37. This is to see if proximity to a current work location is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 38. This is to see if the patients are choosing providers because they don't have health insurance.

Question 39. This is to see if it is not necessarily the location of the health center but because it is in between locations or is easily accessible by public transportation from important locations.

Question 40. This is to see how much insurance companies influence choice of provider.

Question 41. This is to see if how the patient feels about the clinic staff is important.

Question 42. This is to see if proximity to a current school or child care location is important- it can be a location that is relevant to the patient or the decision maker completing the form.

Question 43. his is to see if cost is an important factor in choosing a health care provider.
Question 44. This is to see if they were told where to go by an insurance company or the Hospital District.

Question 45. This is to see if quick appointment availability is an important factor in choosing a health care provider.

Question 46. This is to see if patients are choosing doctors who schedule around the patient's schedule rather than the other way around.

Question 47. This is specific to the PATIENT'S home.

Question 48. This is to see if family or friend's recommendation is important.

Question 49. This is to see is patients are choosing providers based on language spoken.

Question 50. This is to see if the comprehensive care provided by the health center is important.

Questions 51- 53. Some people (like children of divorced parents for example) live in multiple places and some people work in multiple places. Forms at a doctor's office likely capture only one home address and maybe one work address. These questions are trying to see how many people's information this lack of data could be affecting.

Question 51. PATIENT lives in multiple locations.

Question 52. If one address is considered the main address, how long has the PATIENT lived there?

Question 53. Does the patient have a job that makes them work in multiple locations? Examples:

- One location every day- some one who goes to the same place to work every day
- Different, set locations every day- this is someone who visits the same locations but more than one- gardener/ landscaping; housecleaning
- Different, unknown locations everyday- this is someone who is on call like a plumber or cable installer.

Question 54. This forces the person filling out the form to really think about what is the ONE most important reason for choosing a health care provider. This is not an ideal situation (where they might be insured if they currently are not, for example) so it should be based on the current status of the patient today. That means that if they are insured, if there is a list of doctors they can choose from if they want insurance to pay for it, that would be the most important reason before anything else.

Questions 55-58. Activity space research has historically looked at optimal locations of essential services.

Question 59. Researchers and planners assume that the address on file is the patient's home address. This question is trying to determine how true that is.

Questions 60-65. Demographics about the patient. These questions are to see if demographics make any difference when choosing providers.

Questions 66-69. Demographics about the health care decision maker. These questions are to see if demographics make any difference when choosing providers.

Address Log

Step 1
For the address information provided on this page, they should circle the number or numbers that correspond to the type of location they are reporting. Some places will have multiple locations types while others will have one.

This is important to the research because we are going to try to see what types of locations influence choice of health care provider.

Step 2
This is where they will list their address information. They can provide a name of the location if they want, but it is not required. If they look up a location on the Key Map, you can put the Key Map Reference number at the bottom of the box. In the middle, they should put as much and as specific information as possible.

Step 3
Part 1- this is how often they come to this location. This should have only one response circled. For sections A and C, we are only interested in locations that they go to at least once a month. For sections B and D, we are interested in locations that they go to at least once a year. If they go to a location less often than that, we do not consider it to be a "regular" location and it should not be reported.

Part 2- this should be how long they spend there on average for each visit. So if they are there about 15 minutes each time they go there, they should write a 15 and circle minutes.

Part 3- this should be how long they have been going to this location. For example, if they first started going there in 2000, they would write 7 and circle years.

Step 3 is important because we will also be seeing if the amount of time the person spends at a location influences choice of health care provider.

Finishing with the Subject

After you have given the subject their second incentive, thank them for participating. Make sure they still have their copy of the informed consent with their survey number written on it.

Protocol for Handling Subjects Who Took the Form Home to Complete

When completed forms are received at health center on follow-up days

Review the form to make sure address/ location information is complete and legible. Make sure they circled one or more location types in Step 1. Finally, make sure they have answered all three parts of Step 3. The first part should have only one answer circled, the second part should have a length of time they spend at that location during each visit, and the third part should indicate how long they have been coming to the location. For the second and third parts the unit of measure should be circled (minutes/ hours or months/years). When checking the activity space log, use a red pen and put your initials by any changes or clarifications you make on the form.

Once you have verified the address log, staple the pages together, count the number of pages and fill in the page numbers at the bottom of each page. Write the survey number at the top of every page if not already done. Then put the completed log in the completed forms box.

Put your initials in the "Log Completed and Verified" column on the Project Tracking Sheet.

Then, take a $10 gift card (the ones without the black edges and with a 5 digit code written on the envelope) and write the 5 digit code in the "$10 Incentive Received" column on the Project Tracking Sheet.

> You may want to pull the card out of the envelope and show them it is a Fiesta Gift Card. Let them know that the card starts losing value if it is not used by October 2008.

When completed forms are received via mail

Review the form to make sure address/ location information is complete and legible. Make sure they circled one or more location types in Step 1. Finally, make sure they have answered all three parts of Step 3. The first part should have only one answer circled, the second part should have a length of time they spend at that location during each visit, and the third part should indicate how long they have been coming to the location. For the second and third parts the unit of measure should be circled (minutes/ hours or months/years).

Once you have verified the address log, staple the pages together, count the number of pages and fill in the page numbers at the bottom of each page. Write the survey number at the top of every page if not already done. Then put the completed log in the completed forms box.

Put your initials in the "Log Completed and Verified" column on the Project Tracking Sheet. Find the survey number on the Contact Information for Address Logs Taken Home. Complete an envelope with the subjects name and mailing address. The return address is:

[redacted]

Then, take a $10 gift card (the ones without the black edges and with a 5 digit code written on the envelope) and write the 5 digit code in the "$10 Incentive Received" column on the Project Tracking Sheet. Put the card in an envelope and mail it. Postage required: $0.41.

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If forms are not received and it is necessary to follow-up with the patient

Is there a phone number and name listed on the Contact Information for Address Logs Taken Home sheet? If so, call the patient and use this script:

> Researcher: Hello, is (subject's name) there?
>
> If asked for the purpose of the call:
>
> Researcher: My name is Jennifer Rankin and I am a graduate student at The University of Texas. I am calling today to follow up on a survey that (subject's name) completed to help me with my research.
>
> If asked to leave a message:
>
> Researcher: Please have (subject's name) call me, Jennifer Rankin at [redacted] regarding the survey he/ she completed for my student research.

If there is no phone number but there is a name and address, send a brief letter:

> Dear Sir/ Madam,
>
> I am writing to follow-up with you regarding a survey you took home to complete for my student research. I have not received your response via mail yet, so I am writing to remind you to complete the form and return the form, if possible.
>
> If you are having any problems completing the log, please contact me so that I can help you. My name and phone number are listed below. I can send a replacement envelope, more forms or answer any questions you have.
>
> If you have decided not to continue with the study, please contact me so that I can formally remove your information from our files.
>
> Thank you,
>
> Jennifer Rankin
> Etc.

If there is no contact information, consider the address log as lost to follow-up and write Lost to Follow-Up in the Project Tracking Sheet under the "Log Completed and Verified" column on the Project Tracking Sheet. Write "NO" under the "$10 Incentive Received" column on the Project Tracking Sheet.

Administrative Details

Hours
Each day we will be at the health center for the full day until we have enough subjects for the study. The clinic hours are:

M-F 7:30- 5:15
Sat 7-3

This means we will need to get to the health center by 7:15 every morning to set up and will likely leave after 5:30 in order to clean up.

I expect that it will take approximately 6 days to do the full data collection + 1 day for the pilot.

Subjects
We will have 50 people complete the pilot.

A total of 384 subjects are needed for the actual study. This means that we need to get responses from approximately 64 people each day if we are to stick to the 6 day schedule.

Set-Up and Daily Procedures
Each day we will set up and have forms ready prior to the clinic opening.

1. Place a fresh tracking sheet on the clipboard and number sequentially the column marked "Survey Number." Start with only one sheet on the clipboard in case we don't get that many subjects. Start with the next day's lowest number even if we did not reach x999 the day before. Number the pages throughout the day starting with the next number after the last page from the day before and put the used sheets in the completed forms box.
   Day 1 (pilot) use numbers 1001 up to 1999
   Day 2 use numbers 2001 up to 2999
   Day 3 use numbers 3001 up to 3999
   etc.
2. Throughout the day, write the hour next to the survey numbers on the Project Tracking Sheet.
3. Place a fresh Contact Information Sheet on the clipboard. Number the page based on the page from the day before. As new pages are added throughout the day, add the page number at the bottom.
4. All completed forms and tracking sheets should be placed in one box throughout the day. Time permitting, keep forms tidy and organized by type for easier processing later.
5. Subjects should use pens with blue ink to help their answers stand out. Don't let the subject walk away with our pens! Let Jennifer know if we are running low on pens so she can buy more before the next day.
6. We will be stapling the completed activity space logs throughout the day. Let Jennifer know if we are running low on staples so she can bring some more the next day.

7. If you have free time, there may be some forms to collate. Let Jennifer know if we are running low on staples so she can bring some more the next day.

8. I hope that there will be plenty of time for you to work on your own stuff. If there are any down periods, please do so.

9. If you are helping a subject, help them throughout the whole process.

2 oz	envelope + up to nine pages	$0.97	2 forever stamps + 0.15
3 oz	envelope + 10- 15 pages	$1.14	2 forever stamps + 0.32
4 oz	envelope + 16- 21 pages	$1.31	3 forever stamps + 0.08
5 oz	envelope + 22- 27 pages	$1.48	3 forever stamps + 0.25
6 oz	envelope + 28- 34 pages	$1.65	4 forever stamps + 0.01
7 oz	envelope + 35- 40 pages	$1.82	4 forever stamps + 0.18
8 oz	envelope + 41- 46 pages	$1.99	4 forever stamps + 0.35
9 oz	envelope + 47- 52 pages	$2.16	5 forever stamps + 0.11
10 oz	envelope + 53- 58 pages	$2.33	5 forever stamps + 0.28
11 oz	envelope + 59- 65 pages	$2.50	6 forever stamps + 0.04

Script for Follow-Up

Researcher: Hello, is {subject's name} there?

If asked for the purpose of the call:

Researcher: My name is Jennifer Rankin and I am a graduate student at The University of Texas. I am calling today to follow up on a survey that {subject's name} completed to help me with my research.

If asked to leave a message:

Researcher: Please have {subject's name} call me, Jennifer Rankin at [redacted] regarding the survey he/ she completed for my student research.

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Address Log Worksheet

Please take a moment to think about the places where you regularly spend time. This includes where you live, work and go shopping, to name a few of the types of locations. We have defined a place where you regularly spend time as:

Non-medical: a place you go to at least once a month
Medical: a place you go at least once a year

Now think about the places you go to regularly and count the number of different places in each category. If you have counted a location in one category, do not count it in a second category. For example, if you counted a Target location as a "Grocery shopping" location but you also buy electronics or clothes there, do not count it in the "Other shopping" section again.

If you are the decision maker for a patient, please complete one of these forms for yourself and one for the patient. You will be asked to provide addresses for where each of you regularly spend time.

Non-medical

Type of Location	Number of different locations you go to at least once a month	
	Section A: Health Care Decision Maker	Section C: Patient (if different from decision maker)
Home		
Work		
School		
Child Care		
Grocery shopping		
Other shopping		
Convenience mart		
Car service (including gas)		
Entertainment		
Worship		
Social Visit		
Volunteer		
Dining Out		
Bank		
Place to buy stamps or send letters and packages		
Other		

Medical

Type of Location	Number of different locations you go to at least once a year	
	Section B: Health Care Decision Maker	Section D: Patient (if different from decision maker)
Routine care		
Sick care		
Specialist		
Traditional Medicine		
Pharmacy		
Dentist		
Mental Health Provider		
Physical Therapist		
Other		

Address Log Worksheet

Home: All the places that you consider to be home/ residence.

Work: All the places that you go to to earn a living. If you have a job that takes you to different locations each day consider this:

- Do you work at many places, but all the places are fixed locations that you go to routinely (landscaping, housecleaning, babysitting, etc.)? If so, you should count all of the locations where you regularly go.
- Do you work at many places, but you don't know where you will work each day (plumber, cable installation/ repair, taxi driver, etc.)? If so, you should count only 1 location.

School: This should be the location where you go to school or where you routinely go to take a child to school or pick them up and/or participate in a child's school activities. If you work at a school, then that should be counted only as work.

Child Care: This should be the location where you take a child or pick them up for child care. The person completing this form should not be in child care themselves. If you work at a child care location, then that should be counted only as work. If the child receives child care at school after or before normal school hours, then both location types should be circled for one address.

Grocery Shopping: The locations where you buy most of your food. This can be grocery stores, discount warehouses (Costco, Sams), convenience stores, etc.

Other Shopping: The locations where you go to buy everything else like clothes, electronics, gifts, office supplies, etc.

Car Service (Including Gas): Any location where you take your car for any type of service including locations where you purchase gasoline.

Entertainment: Any location where you go for any type of entertainment. This includes parks, museums, movie theaters, sporting events, bars and other adult entertainment, dance clubs, and any other location where you go for entertainment or leisure activities. It also includes places where illicit drugs are used. We do not need to know why you are at an entertainment location- just choose "Entertainment" for each of these types of locations.

Social Visit: Any place where you go to visit a family member or friend routinely. This is typically in someone else's house. We do not need to know who the person is- just the location.

Volunteer: Any place where you donate your time. It is like a work location but you are not paid to provide your services.

Dining Out: Any place, including fast food and coffee shops, where you regularly buy prepared food or drink items.

Bank: Any place where you conduct banking or use an ATM.

Routine Care: Any place where you regularly go for annual exams, well visits, check-ups and immunizations. This includes obstetricians and gynecologists (OB/ GYN).

Sick Care: Any place where you regularly go to seek health care when you are sick.

Specialist: A doctor that sees you for a specific reason (cardiologist, orthopedist, eye doctor.)

Traditional Medicine: This includes herbalists, acupuncture, curanderos, spiritual healers and others. This is sometimes called Complementary or Alternative Medicine.

Physical Therapy: This includes occupational, speech or other rehabilitative therapies.

Other: Any other places you regularly go that were not captured in these address types.

Appendix G. Informed Consent Forms

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER – HOUSTON

A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data
HSC-SHIS-07-0482

INFORMED CONSENT FOR RESEARCH STUDY

INVITATION TO TAKE PART

You are being invited to take part in a research study called, *A GIS-based Exploratory Study of the Creation of Primary Care Service Areas using Activity Space Data*. The person in charge of this study is Jennifer Rankin, a doctoral student at the University of Texas-Houston. For this study, she is called the Principal Investigator, or PI.

Your decision to take part is voluntary and you may refuse to take part, or choose to stop taking part, at any time. A decision not to take part or to stop being a part of the research project will not change the services available to you at the University of Texas-Houston Health Science Center.

You may refuse to answer any questions asked or written on any forms.

This research project has been reviewed by the Committee for the Protection of Human Subjects (CPHS) of the University of Texas Health Science Center at Houston as HSC-SHIS-07-0482

DESCRIPTION OF RESEARCH

You are being asked to join this research study because you chose to come to this health care provider today. The purpose of this research study is to understand how people choose their health care providers, and how the location of the health care provider fits into their daily travel to work, school, errands, entertainment, and other regular activities.

PROCEDURES

If you agree to join this research study, you will be asked to complete a survey and an activity log. The survey will ask you questions about why you choose to come to this particular health care provider, and how you usually use health care services. The activity log will ask you to give the addresses or locations of the places where you regularly go. This includes locations where the use of alcohol or illegal drugs occurs.

You do not have to answer any questions on the survey that you do not want to answer, and you can stop filling-out the survey at any time. You do not have to complete the activity log if you do not want to, and you do not have to list any places that you do not want to on the activity log.

You will be asked to finish the survey while you are at the health center. However, because the activity log may take a longer time to complete, you will be allowed to take it home to finish. If you decided to finish the activity log at home, you will be given the opportunity to provide contact information for follow-up as well as a stamped and addressed envelope to mail the activity log to the Principal Investigator. If you do provide contact information but do not return the activity log, you will be contacted by the Principal Investigator for follow-up.

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TIME COMMITMENT

The survey takes approximately 5-10 minutes to complete. The amount of time to complete the log varies because you may need to look up the addresses in the telephone directory. It could take from 10 minutes up to 45 minutes to complete the log. The total amount of time to complete this study will be between 20 minutes to 1 hour.

BENEFITS

You may receive no direct benefit from being in this study. However, by taking part in this study, you may help people get better access to health care in the future.

RISKS

There are no physical risks to you if you join this research study. There is the potential risk of the information you give on the survey and activity log could be seen by others not involved in this study. However, the research team has set up many ways to protect the information that you give.

ALTERNATIVES

The only alternative is not to take part in this study.

STUDY WITHDRAWAL

The Principal Investigator may decide to stop you from taking part in this research study at any time. You could be removed from the research study for reasons related only to you. For example, you could be removed from this study, if you are unable to complete both the survey and activity log.

IN CASE OF INJURY

If you suffer any injury as a result of taking part in this research study, please understand that nothing has been arranged to provide free treatment of the injury or any other type of payment. However, all needed facilities, emergency treatment and professional services will be available to you, just as they are to the community in general. You should report any injury to Jennifer Rankin at phone number [redacted] and to the Committee for the Protection of Human Subjects at (713) 500-3985. You will not give up any of your legal rights by signing this consent form.

COSTS, REIMBURSEMENT, AND COMPENSATION

It will not cost you anything to join this study. If you should receive a bill that you believe is related to your taking part in this research project, please contact, the Principal Investigator, Jennifer Rankin, at [redacted]. In appreciation of your time, you will receive a $5 gift card for completing the survey and a $10 gift card for completing the activity log. You will receive these amounts when you have returned the survey and activity log to the Principal Investigator. If take the activity log home, you will have two ways to receive the remainder of your incentive. First, you can return to the health center during a set schedule of days and times or you can choose to have the incentive mailed to you.

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CONFIDENTIALITY

You will not be personally identified in any reports or publications that may result from this research project. Any personal information about you that is gathered during this research project will remain confidential to every extent of the law. A special number will be used to identify you in the research project and only the investigator will know your name.

QUESTIONS:

The Principal Investigator, Jennifer Rankin, will be glad to answer any questions regarding the study at any time. She can be reached at [redacted].

SIGNATURES:

Sign below only if you understand the information given to you about the research and choose to take part. Make sure that any questions have been answered and that you understand the study. If you have any questions or concerns about your rights as a research subject, call the CPHS at (713) 500-3985. If you decide to take part in this research study, a copy of this signed consent form will be given to you.

_____
Printed Name of Subject

_____ _____
Signature of Subject Date / Time

_____
Printed Name of Individual Obtaining Consent

_____ _____
Signature of Individual Obtaining Consent Date / Time

CPHS STATEMENT:
This study (HSC-SHIS-07-0482) has been reviewed by the Committee for the Protection of Human Subjects (CPHS) of the University of Texas Health Science Center at Houston. For any questions about research subject's rights, or to report a research-related injury, call the CPHS at (713) 500-3985.

Harris County Hospital District
Research Office
Approved Date: JAN 31 2008
Expiration Date: SEP 30 2008
Amendment Date: _____

IRB NUMBER: HSC-SHIS-07-0482
IRB APPROVAL DATE: 10/10/2007
IRB EXPIRATION DATE: 9/30/2008

EL CENTRO DE CIENCIAS DE LA SALUD UNIVERSIDAD DE TEXAS – HOUSTON
(The University of Texas Health Science Center at Houston)

Estudio exploratorio basado en Sistemas de Informacion Georeferenciado para la Creación de Áreas de Servicio Primario en Salud usando Datos de Espacios de Actividad
HSC-SHIS-07-0482

CONSENTIMIENTO INFORMADO PARA EL ESTUDIO DE INVESTIGACION

INVITACION A PARTICIPAR

Usted esta siendo invitado a participar en un estudio de investigación llamado, Estudio exploratorio basado en Sistemas de Información Georreferenciado para la Creación de Areas de Servicio Primario usando datos de Espacios de Actividad. La persona encargada de este estudio, Jennifer Rankin es estudiante de Doctorado de la Universidad de Texas - Houston y es la Investigadora Principal (IP).

Su decisión de participar es voluntaria puede rechazarla o retirarse en cualquier momento. Si decide no participar o retirarse del estudio, esta decisión no cambiará los servicios que le presta el Centro de Ciencias de la Salud de la Universidad de Texas en Houston.

Puede negarse a responder cualquier pregunta realizada o escrita en cualquiera de los formularios.

Este proyecto de investigación ha sido revisado por el Comité para la Protección de Sujetos Humanos (CPHS) de Centro de Ciencias de la Salud de la Universidad de Texas en Houston y tiene el código HSC-SHIS-07-0482.

DESCRIPCION DEL ESTUDIO

Se le ha pedido que participe en este estudio dado que usted escogió venir a su proveedor de servicios de salud hoy. El propósito de este estudio es entender como las personas escogen su proveedor de servicios de salud, y como la ubicación de este proveedor se acomoda a su recorrido diario hacia el trabajo, la escuela, diligencias personales, entretenimiento y otras actividades cotidianas.

PROCEDIMIENTOS

Si esta de acuerdo en participar en este estudio de investigación, se le pedirá que complete una encuesta y un registro de actividades. En la encuesta encontrará preguntas relacionadas con las razones para venir a este proveedor de salud en particular, y como usted usa regularmente los servicios de salud. El registro de actividades le dará las direcciones o localidades de los lugares donde usualmente va. Esto incluye las localidades donde ocurre el uso de alcohol o drogas ilegales.

Usted no está obligado a contestar las preguntas en la encuesta que no desee contestar, y puede suspender la encuesta en cualquier momento. No está obligado tampoco a completar el registro de actividades si usted no lo quiere hacer, y no es necesario que enumere lugares que usted no quiere que aparezcan en el registro de actividades.

Se le pide que termine la encuesta en el tiempo que se encuentre en el centro de salud. Sin embargo, como el registro de actividades puede tomar más tiempo para ser completado, éste lo puede terminar en la casa. Si decide llevarse el registro de actividades para completarlo en la

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casa, tendrá la oportunidad de suministrar su información de contacto para poder realizar el seguimiento, así como tendrá un sobre con estampillas y con la dirección para devolver el registro de actividades al investigador principal. Si usted suministra la información de contacto pero no devuelve el registro de actividades, será contactado por el investigador principal para seguimiento.

COMPROMISO DE TIEMPO

La encuesta toma aproximadamente 5 a 10 minutos para ser completada. La cantidad de tiempo para completar el registro de actividades varia dado que usted podría necesitar buscar direcciones en el directorio telefónico. Se estima que toma entre 10 y 45 minutos para completar el registro. La cantidad de tiempo para completar este estudio se encuentra en 20 minutos y 1 hora.

BENEFICIOS

Usted no recibirá beneficio directo por participar en este estudio. Sin embargo, al tomar parte de este estudio, usted podría estar ayudando a otras personas a tener un mejor acceso a los servicios de salud en el futuro.

RIESGOS

No hay riesgos físicos asociados a su participación en este estudio de investigación. Existe un riesgo potencial que la información que suministre en la encuesta o en el registro de actividades sea vista por personas no involucradas en el estudio. Sin embargo, el equipo de investigación ha establecido varias formas para proteger la información que usted suministre.

ALTERNATIVAS

La única alternativa es no participar en este estudio.

RETIRO DEL ESTUDIO

El investigador principal puede decidir parar su participación en este estudio en cualquier momento. Usted sería removido del estudio de investigación por razones que estén relacionadas con usted solamente. Por ejemplo, podría ser removido del estudio si no puede completar tanto la encuesta como el registro de actividades.

EN CASO DE LESION

Si usted sufre de alguna lesión como resultado de su participación en este estudio de investigación, por favor entienda que no hay ninguna provisión para ofrecerle tratamiento gratuito por la lesión o algún otro tipo de pago. Sin embargo, todas la instalaciones necesarias, el tratamiento de emergencia, y los servicios profesionales estarán a su disposición, en la misma medida que la comunidad en general. Usted debe reportar cualquier lesión a Jennifer Rankin al teléfono ([redacted]) y al Comité para la Protección de Sujetos Humanos al (713) 500-3985. Usted no está renunciando a ninguno de sus derechos legales por firmar este consentimiento informado.

COSTOS, REEMBOLSO O COMPENSACION

El hacer parte de esta investigación no tendrá costo alguno. Si usted recibe alguna cuenta la cual cree que está relacionada con su participación en este proyecto de investigación, por favor

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contacte al investigador principal, Jennifer Rankin, al [redacted]. En apreciación por su tiempo, recibirá una tarjeta de regalo por $5 después de completar la encuesta y una tarjeta de regalo por $10 después de completar el registro de actividades. Usted recibirá estas sumas una vez regrese la encuesta y el registro de actividades al investigador principal. Si usted se lleva el registro de actividades a la casa, usted tiene dos alternativas para recibir el faltante de su incentivo. Primero, puede regresar al centro de salud en los días y horas programados o usted puede requerir que el incentivo se le envíe por correo.

CONFIDENCIALIDAD

Usted no será identificado de manera personal en ninguno de los reportes o publicaciones que resulten de este proyecto de investigación. Cualquier información personal acerca de usted que se obtenga en este proyecto de investigación permanecerá confidencial en toda la extensión de la ley. Usted será identificado por un número especial de identificación para este proyecto de investigación y solo el investigador conocerá su nombre.

PREGUNTAS:

El investigador principal, Jennifer Rankin, estará encantada de contestar cualquier pregunta relacionada con el estudio en cualquier momento. La puede encontrar en el [redacted].

FIRMAS:

Firme abajo sólo si usted comprende la información que le se ha suministrado acerca de la investigación y quiere hacer parte de ella. Asegúrese que cualquier pregunta haya sido contestada y que usted entienda el estudio. Si tiene alguna pregunta o preocupación acerca de sus derechos como sujeto de investigación, llame al CPHS al (713) 500-3985. Si usted decide participar en este estudio recibirá una copia de este consentimiento informado.

_____
Escriba el nombre del participante

_____ _____
Firma del participante Fecha/Hora

_____
Escriba el nombre de la persona que obtiene el consentimiento

_____ _____
Firma la persona que obtiene el consentimiento Fecha/Hora

DECLARACION DEL CPHS:

Este estudio (HSC-SHIS-07-0482) ha sido revisado por el Comité para la Protección de Sujetos Humanos (CPHS) del Centro de Ciencias de la Salud de la Universidad de Texas en Houston. Si tiene alguna pregunta acerca de los derechos de los sujetos, o requiere reportar una lesión relacionada con la investigación, llame al CPHS en el (713) 500-3985.

Harris County Hospital District
Research Office
Approved Date: JAN 31 2008
Expiration Date: SEP 30 2008
Termination Date: _____

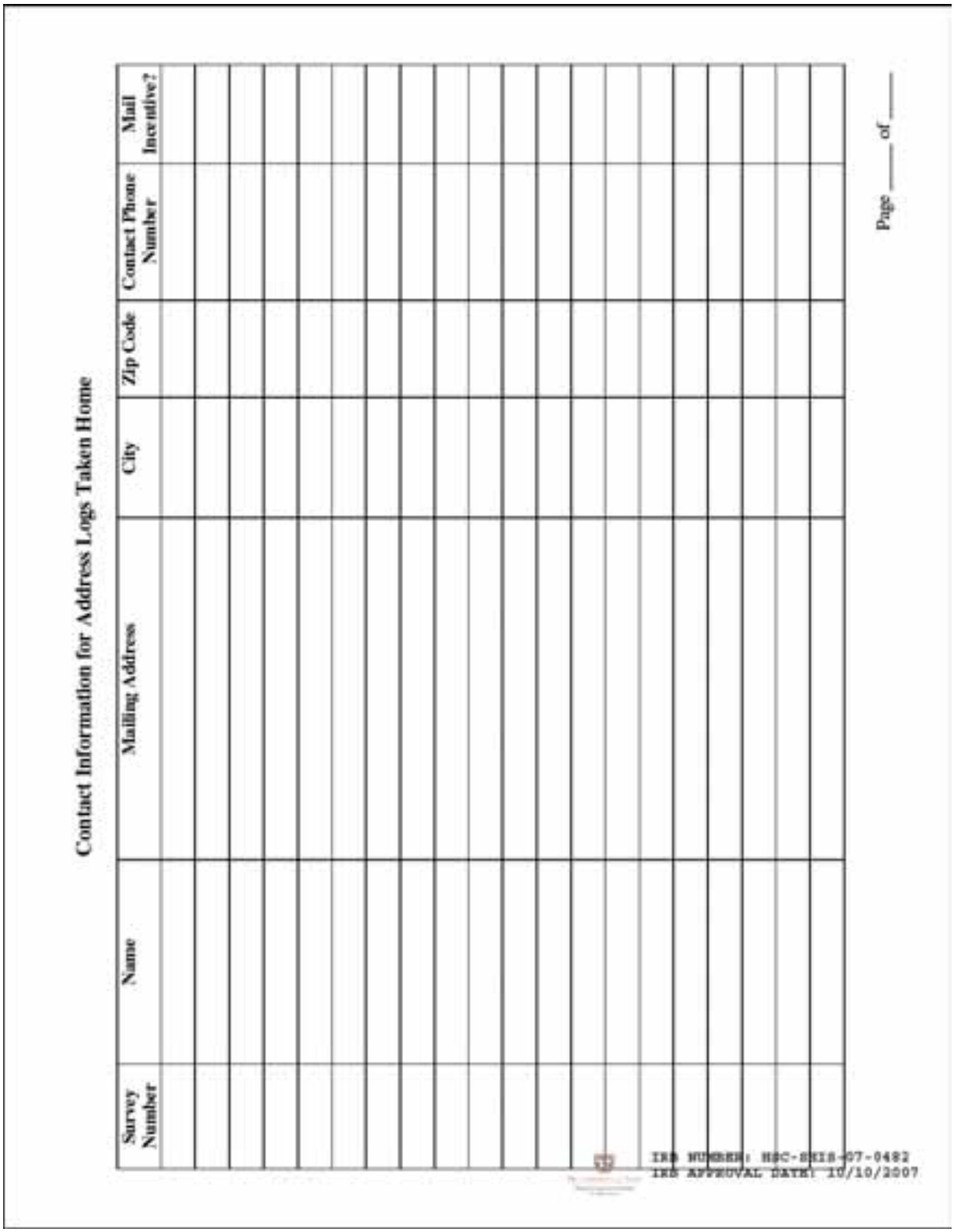
IRB NUMBER: HSC-SHIS-07-0482
IRB APPROVAL DATE: 12/13/2007
IRB EXPIRATION DATE: 09/30/2008

Appendix H. Project Tracking Log

Project Tracking Sheet

Survey Number	Consent Signed and Returned	Survey Completed and Verified	$5 Incentive Received	Address Log Taken Home?	Contact Info Provided?	Log Completed and Verified	$10 Incentive Received

Appendix I. Contact Information for Follow-Up



Contact Information for Address Logs Taken Home

Survey Number	Name	Mailing Address	City	Zip Code	Contact Phone Number	Mail Incentive?

Page ____ of ____

IRB NUMBER: HSC-SBIS-07-0482
IRB APPROVAL DATE: 10/10/2007

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VITA

Jennifer Lynn Rankin is a native of Austin, Texas, where she attended St. Paul Lutheran School and A.N. McCallum High School. In 1994, Jennifer graduated from The University of Texas at Austin with a Bachelor of Arts degree in Latin. She earned her Master of Health Administration degree in 1999 from the Tulane School of Public Health and Tropical Medicine in New Orleans, Louisiana, where she focused on health policy.

She received a Presidential Management Internship and worked for the Maternal and Child Health Bureau of the Health Resources and Services Administration in Rockville, Maryland. Prior to completing this Internship, she went to work on issues related to access to primary care with the Texas Association of Community Health Centers.

In 2003 she came to The University of Texas Health Science Center at Houston and earned her Master of Science degree in Health Information Sciences in 2005. She is in the process of completing a dual degree in Public Health Informatics which will culminate in a Master of Public Health degree and a Doctor of Philosophy degree in Health Information Sciences. While in school, she has been the Fellow at St. Luke's Episcopal Health Charities where she has been working on interactive geographic portals designed to help the medically underserved find appropriate medical homes.

Jennifer's parents are Ulon (Lon) Willis Rankin, Jr. and Sally Harris Rankin. She has one brother, Martin Christopher (Chris) Rankin, who is married to Robin Lynn Rankin. She also has two wonderful nieces, Chrystelle Marissa Rankin and Emily Elizabeth Rankin. She has a large extended family including numerous friends from childhood, school, and twenty plus years as a season ticket holder at University of Texas baseball games.