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November 20, 2006

Mary Truhe, RN, BSN
Quality Manager
Landon State Office Building
Kansas Health Policy Authority
900 S.W. Jackson, Room 900
Topeka, Kansas 66612

Dear Mary,

Enclosed is the HealthWave XIX and HealthWave XXI focused study report, which looked at if beneficiaries who are assigned to PCP's further than 30 miles from their homes, actually saw providers closer to their homes.

KFMC noted that 766 (61.5%) out of 1,245 HW XIX beneficiaries in the study population had a medical office encounter during the study timeframe. Of those, 473 (61.7%) had a medical office visit with a provider within 30 miles of their home. In addition, KFMC noted that 404 out of 848 (47.6%) HW XXI beneficiaries in the study population had a medical office encounter during the study timeframe. Of those, 170 (42.1%) had a medical office visit with a provider within 30 miles of their home. For complete study results, please review the enclosed report.

Please feel free to call me at 785-273-2552 if you have any questions.

Sincerely,

Chris Bergkamp, BA, MBA
Project Manager

Enclosures

Xc Full Report: Celia Humphries, Director, Quality Management, FG
Exec. Summary: Debra Bachmann, HealthWave XIX Program Manager, KHPA
Chris English, HealthWave XXI Program Manager, KHPA
Cover Letter: John Dixon, Contract Manager, KHPA

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Please file these reports in the EQRO notebook titled "Access/Mapping" under the heading "Access Mapping" HWXIX & HWXXI, 10/01/05-09/30/06

WE FACILITATE THE IMPROVEMENT OF HEALTHCARE

HealthWave XIX & XXI Mapping Focused Study

Contract Number:	**06385**
Program(s) Reviewed:	**HW XIX & HW XXI**
Study Period:	**September 1, 2005 – February 28, 2006**
Submission Date:	**November 21, 2006**

Report Submitted by:

Kansas Foundation for Medical Care, Inc.

2947 S.W. Wanamaker Drive
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Providers Accessed for Primary Medical Care; HealthWave XIX and HealthWave XXI

Report Summary – November 21, 2006

OBJECTIVES

The Kansas Foundation for Medical Care (KFMC) has completed several mapping projects for the State Medicaid Agency, the Kansas Health Policy Authority (KHPA). Historically, the projects have focused on locations of beneficiaries and locations of providers.

The primary objective of this focused study was to determine whether HealthWave (HW) XIX and HW XXI beneficiaries who are assigned to a PCP more than 30 miles away are actually obtaining care closer to home. Secondary objectives of this study were to determine medical office visits and emergency room utilization. Beneficiaries eligible for this study were assigned PCPs more than 30 miles from their home during the two previous mapping focused studies, November 2005 and April 2006. In addition, beneficiaries maintained the same residential city, the same program, and the same PCP city during the study timeframe. Study results will be analyzed between the HW XIX and HW XXI, as well as between the study group and a comparison group.

TECHNICAL METHODS OF DATA COLLECTION AND ANALYSIS

KFMC and KHPA collaboratively selected to conduct this focused study. For this study, PCPs include medical doctors, physician assistants, and advanced registered nurse practioners.

An early version of the study question was, “are beneficiaries with an assigned PCP over 30 miles from their home having office visits with their PCP or with a provider closer to their home?” With that version, the study population would have been restricted to beneficiaries that had the same home and PCP addresses in both of the two previous studies. However, preliminary analysis of the data revealed several very minor address changes, such as, corrections to misspelled street names or mistyped ZIP codes, or moves within the same city. There were also changes in PCP assignment where the new PCP was located near the former PCP. Other changes were more significant, such as beneficiaries moving to another city, or being assigned to a PCP in another community. In light of these changes, it was determined that the study population would include beneficiaries whose address city and whose PCP address city remained the same between the two previous mapping studies. This seemed to be the

least restrictive option that would still be consistent with the study question. It also allows for the following cases: when beneficiaries saw their PCP at a branch office, when a nurse practitioner provided service, and when another practitioner covered for the PCP during vacation or an emergency.

Revising the study question to “are beneficiaries with an assigned PCP over 30 miles from their home having office visits near their PCP or near their home?” required an operational definition for “near.” Providers were considered near the beneficiary if their address was within 30 miles of the beneficiary's. Using "having the same address city" and "having the same ZIP code" were rejected as definitions for "near the PCP" because there were many examples in urban areas where the provider and PCP were located just a few miles apart in adjacent suburbs. A 10-mile radius around the PCP location better captured the study's intent. A minor anomaly with this definition is that a provider located between the beneficiary and PCP may be simultaneously "near" both the beneficiary and PCP.

In the November 2005 and April 2006 focused studies, distance was calculated three different ways between the beneficiary and PCP addresses: 1) as the crow flies, 2) on vertical and horizontal planes, and 3) an “average” of the two previous methods. During this study, distance traveled to obtain care from a provider was calculated by the “average” method. In addition, the study populations were compared against those assigned to a PCP less than 30 miles from home, the comparison group, in the previous studies. The table below illustrates how the study population was determined.

Determination of Study Population	HW XIX	HW XXI
Beneficiaries in November 2005 study	59,018	27,233
Beneficiaries in April 2006 study	62,821	29,534
Beneficiaries in both studies	41,269	20,261
Beneficiaries who were assigned a PCP > 30 miles from home in one study and < 30 miles in the other study	-740	-259
Beneficiary city address change	-1,581	-329
PCP city address change	-1,550	-888
Beneficiaries who were assigned a PCP < 30 miles from home in both previous studies (Comparison Group)	-37,084	-18,243
Beneficiaries in this mapping focused study	1,245	848

*Some reasons for exclusion listed above overlap.

CMS 1500 professional encounter data and UB-92 outpatient and emergency room encounter data were the source data used for the project analysis. Evaluation and

management (E&M) services for each setting were considered. The performing provider on the CMS 1500 encounters and attending provider on the UB-92 encounters were the physician identifiers used for this study.

Analysis focused on the 1,245 HW XIX and 848 HW XXI beneficiaries, and all of their non-voided encounter records with dates of services between September 1, 2005 and February 28, 2006.

DESCRIPTION OF DATA

HealthWave XIX

There were no statistically significant differences between the proportions of females and males in the study group compared to the comparison group ($p = .84$).

- Study Group: 690 (55.4%) females and 555 (44.6%) males
- Comparison Group: 20,660 (55.7%) females and 16,424 (44.3%) males

The percent of the study population that is Hispanic is statistically significantly less than the percent in the comparison group ($p < .001$).

- Study Group: 175 (14.1%) Hispanic and 1,070 (85.9%) non-Hispanic
- Comparison Group: 6,772 (18.3%) Hispanic and 30,312 (81.7%) non-Hispanic

There is a statistically significantly lower percent of non-White beneficiaries in the study population compared to the comparison group ($p < .0001$).

- Study Group 239 (19.2%) non-White and 1,006 (80.8%) White
- Comparison Group: 11,946 (32.2%) non-White and 25,138 (67.8%) White

Of the 1,245 HW XIX beneficiaries in the study population, 766 (61.5%) had at least one medical office visit encounter. By contrast, 23,250 (62.7%) of the 37,084 HW XIX beneficiaries in the comparison group had a least one medical office visit encounter. The difference in these two rates is not statistically significant ($p = .40$).

Of the 766 HW XIX beneficiaries with medical office visits, 473 (61.7%) had at least one visit where the performing or attending provider was within 30 miles of their home. There were 358 (46.7%) of the 766 beneficiaries who had at least one visit with a performing or attending provider within 10 miles of the assigned PCP. Lastly, 408 (53.3%) of the 766 HW XIX beneficiaries in the study population, that had at least one medical office visit during the study timeframe, had more visits near their home than within 10 miles of their assigned PCP.

Visits within 30 miles of beneficiaries home	Visits within 10 miles of Assigned PCP			
		None	Some	Total
	None	28	265	293
	Some	380	93	473
	Total	408	358	766

A cross tabulation provided above, shows beneficiaries having at least one medical office visit within 30 miles of their home, and beneficiaries having at least one medical office visit within 10 miles of their assigned PCP.

- 380 (49.6%) had visits within 30 miles of home and no visits within 10 miles of the assigned PCP. Even though these beneficiaries are assigned a PCP more than 30 miles away, they are obtaining care closer to home.
- 265 (34.6%) had visits within 10 miles of the assigned PCP, and no visits within 30 miles of their home. These beneficiaries are actually traveling further than 30 miles to obtain care.
- 93 (12.1%) had visits within 30 miles of home, and within 10 miles of the assigned PCP. The majority of these beneficiaries obtained care from more than one provider, including at least one provider close to home, and at least one provider further away. In four cases, care was obtained from a provider who was within 30 miles of the beneficiary's home, as well as within 10 miles of their assigned PCP.
- 28 (3.7%) visited providers outside both the 30-mile radius of the beneficiary and the 10-mile radius of the assigned PCP, indicating they obtain care further than 30 miles from home, but still not near their assigned PCP.

Of the 1,245 HW XIX beneficiaries in the study, 345 (27.7%) had at least one emergency room (ER) visit. By contrast, 9,722 (26.2%) of the 37,084 of the HW XIX beneficiaries in the comparison group had a least one ER visit. The difference in these two rates is not statistically significant ($p = .24$).

For the 380 beneficiaries who had a medical office visit within 30 miles of their home but not within 10 miles of their assigned PCP, 127 (33.4%) had at least one ER visit. By contrast, for the 265 beneficiaries with a medical office visit within 10 miles of their assigned PCP but not within 30 miles of their home, 74 (27.9%) had an ER visit. The difference is not statistically significant ($p = .14$).

HealthWave XXI

The proportions of females and males in the study population are statistically significantly different than the proportions in the comparison group ($p = .013$).

- Study Group: 378 (44.6%) females and 470 (55.4%) males
- Comparison Group: 8,931 (49.0%) females and 9,312 (51.0%) males

The study population has a statistically significantly higher percent of Hispanics than the percent in the comparison group ($p < .0001$).

- Study Group: 307 (36.2%) Hispanic and 541 (63.8%) non-Hispanic
- Comparison Group: 4,084 (22.4%) Hispanic and 14,159 (77.6%) non-Hispanic

There is a statistically significantly lower percent of non-White beneficiaries in the study population compared to the comparison group ($p < .0001$).

- Study Group: 81 (9.6%) non-White and 767 (90.4%) White
- Comparison Group: 3,815 (20.9%) non-White and 14,428 (79.1%) White

Of the 848 HW XXI beneficiaries in the study population, 404 (47.6%) had at least one medical office visit. By contrast, 11,037 (60.5%) of the 18,243 HW XXI beneficiaries in the comparison group had a least one medical office visit. The difference in these two rates is statistically significant ($p < .0001$).

Of the 404 HW XXI beneficiaries with medical office visits within the study period, 170 (42.1%) had at least one visit where the performing or attending provider was within 30 miles of their home. In addition, 217 (53.7%) had at least one visit with a performing or attending provider within 10 miles of the assigned PCP. Lastly, 139 (34.4%) of the 404 HW XXI beneficiaries in the study population, that had at least one medical office visit during the study timeframe, had more visits near home than within 10 miles of their assigned PCP.

	Visits within 10 miles of Assigned PCP			
		None	Some	Total
Visits within 30 miles of beneficiaries home	None	58	176	234
	Some	129	41	170
	Total	187	217	404

The above cross tabulation of beneficiaries having at least one medical office visit within 30 miles of their home, and beneficiaries having at least one medical office visit within 10 miles of their assigned PCP gives the following results:

- 129 (31.9%) had visits within 30 miles of their home and no visits 10 miles of their assigned PCP. Even though beneficiaries are assigned a PCP more than 30 miles, they are obtaining care closer to home.
- 176 (43.6%) had visits within 10 miles of the assigned PCP, but no visits within 30 miles of their home. These beneficiaries are actually traveling further than 30 miles to obtain care.
- 41 (10.1%) had visits within 30 miles of their home and within 10 miles of the assigned PCP. The majority of these beneficiaries obtained care from more than one provider, including at least one provider close to home, and at least one provider further away. In one case, the visit was to a provider within 30 miles of their home, as well as within 10 miles of their assigned PCP.

- 58 (14.4%) visited providers outside both the 30-mile radius of the beneficiary and the 10-mile radius of the assigned PCP, indicating they obtain care further than 30 miles away from home, but still not near their assigned PCP.

Of the 848 HW XXI beneficiaries in the study, 112 (13.2%) had at least one ER visit. By contrast, 2,767 (15.2%) of the 18,243 HW XXI beneficiaries in the comparison group had a least one ER visit. The difference in these two rates is not statistically significant (p = .12).

For the 129 beneficiaries who had a medical office visit within 30 miles of their home but not within 10 miles of their assigned PCP, 18 (14.0%) had at least one ER visit. By contrast, for the 176 beneficiaries with a medical office visit within 10 miles of their assigned PCP but not within 30 miles of their home, 24 (13.6%) had an ER visit. The difference is not statistically significant (p = .94).

CONCLUSIONS

HealthWave XIX

This study determined that beneficiaries are seeing medical providers that are closer to their homes when their assigned PCP is more than 30 miles from their residence.

Of the 1,245 HW XIX beneficiaries in the study, 61.5% had at least one medical office visit during the study timeframe. In contrast, of the 23,250 HW XIX beneficiaries in the comparison group, 62.7% had at least one medical office visit. No statistically significant difference was found between the study population and the comparison group.

In addition, of the 1,245 HW XIX beneficiaries in the study, 27.7% had at least one ER visit. In contrast, of the 37,084 HW XIX beneficiaries in the comparison group, 26.2% had at least one ER visit. No statistically significant difference was found between the study population and the comparison group.

Analysis also indicates that there is not a statistically significant difference in the percent of the study population having at least one ER visit between those who had a medical office visit near their home, but not near their assigned PCP, and those who had a medical office visit near their assigned PCP but not near their home.

HealthWave XXI

This study determined that beneficiaries are seeing medical providers that are closer to their homes when their assigned PCP is more than 30 miles from their residence.

Of the 848 HW XXI beneficiaries in the study, 47.6% had at least one medical office visit during the study timeframe. In contrast, of the 18,243 HW XXI beneficiaries in the comparison group, 60.5% had at least one medical office visit, concluding that beneficiaries who were assigned a PCP less than 30 miles from home in both of the

previous studies had a statistically significantly higher rate of at least one medical office visit compared to the study population.

In addition, of the 848 HW XXI beneficiaries in the study, 13.2% had at least one ER visit. In contrast, of the 18,243 HW XXI beneficiaries in the comparison group, 15.2% had at least one ER visit. No statistically significant difference was found between the study population and the comparison group.

Analysis also indicates that there is not a statistically significant difference in the percent of the study population having at least one ER visit between those who had a medical office visit near their home, but not near their assigned PCP, and those who had a medical office visit near their assigned PCP but not near their home.

COMPARISONS

The HW XXI study population had a statistically significantly lower ($p < .0001$) rate of medical office visits within 30 miles of their home when compared to HW XIX.

The HW XXI study population had a statistically significantly higher ($p < .0159$) rate of medical office visits within 10 miles of their assigned PCP when compared to HW XIX.

The proportion of the HW XXI beneficiaries in the study population having more medical office visits near their home than near their assigned PCP was statistically significantly lower than the corresponding proportion of HW XIX beneficiaries.

RECOMMENDATIONS

1. Analyze data to determine the types of services beneficiaries are receiving more than 30 miles from their residence, compared to services beneficiaries are receiving from providers closer to their homes.
2. Since KFMC concluded that beneficiaries are receiving medical care from providers other than their assigned PCP (at times closer to home, other times further away from home) more research should be conducted to determine specifically how far beneficiaries are traveling to receive what types of services, from providers other than their assigned PCP.

DISTANCES TRAVELED BY HEALTHWAVE XIX AND XXI BENEFICIARIES TO ACCESS PRIMARY MEDICAL CARE

November 21, 2006

Based on:
CONDUCTING FOCUSED STUDIES OF HEALTH CARE QUALITY
A protocol for use in Conducting Medicaid External Quality Review Activities
Department of Health and Human Services Centers for Medicare & Medicaid Services
Final Protocol Version 1.0
May 1, 2002

According to the Protocol, *all focused studies should target improvement in relevant areas of clinical care and non-clinical services. Topics selected for study must reflect the Medicaid enrollment in terms of demographic characteristics, prevalence of disease and the potential consequences (risks) of the disease. Information on Medicaid enrollees can be obtained from [various sources listed within the protocol.] Note also that the State Medicaid agencies may select the study topic*.

CONDUCTING FOCUSED STUDIES OF HEALTH CARE WORKSHEET – ATTACHMENT A

Demographic Information		
MCO/PIHP Name or ID: **FIRSTGUARD HEALTH PLAN**		
Study Leader Name: **KANSAS FOUNDATION FOR MEDICAL CARE (KFMC)** John McNamee Chris Bergkamp		
Telephone Number: **KFMC 785-273-2552**		
Name of Study: **DISTANCES TRAVELED BY HW BENEFICIARIES TO ACCESS PRIMARY MEDICAL CARE**		
Date of Study Period: **September 1, 2005 through February 28, 2006**		
Type of Delivery System (check all that are applicable)		
____ Staff Model ____ Network ____ Direct IPA ____ IPA Organization	__X__ MCO ____ PIHP	1,245 HW XIX Enrollees in Study 848 HW XXI Enrollees in Study **2,093 Total Number of Enrollees in Study**
Primary Care Providers Involved ____ for HW XIX ____ for HW XXI		

Activity 1. SELECT THE STUDY TOPIC(S)	
1.1. Study topic is selected through data collection and analysis of comprehensive aspects of enrollee needs, care and services.	The previous focused study demonstrated that a large number of beneficiaries were assigned to PCPs substantially more than 30 miles from home. The development of the study topic was the result of a joint effort between the Kansas Health Policy Authority (DHPA) and KFMC. This study seeks to determine whether beneficiaries who are assigned to a PCP more than 30 miles away are actually obtaining care closer to home or closer to their assigned PCP, analyzing aspects of medical office visits and emergency room utilization.
1.2. The topic(s), over time, address a broad spectrum of key aspects of enrollee care and services.	Results from this study will be used to analyze beneficiary's utilization of medical office visits and emergency rooms services. Results will also be used to the development of future access focused studies, and may also lead to potential interventions, if issues of concern are identified.
1.3. The topics, over time, include all enrolled populations: i.e., do not exclude certain enrollees such as those with special health care needs.	The HW XIX and HW XXI beneficiaries who traveled more than 30 miles in the two previous focused studies will be eligible for inclusion in this study.
Activity 2. DEFINE THE STUDY QUESTION(S)	
2.1. The study question(s) is/are clearly stated in writing.	The study questions KFMC will address are as follows: 1. Are HW XIX beneficiaries who are assigned PCPs more than 30 miles from their home obtaining medical care near their assigned PCP or near their home? 2. Are HW XXI beneficiaries who are assigned PCPs more than 30 miles from their home obtaining medical care near their assigned PCP or near their home? 3. Are HW XIX beneficiaries who are assigned PCPs more than 30 miles from their home obtaining more medical care near their home, than beneficiaries who are not assigned PCPs more than 30 miles from their home? 4. Are HW XXI beneficiaries who are assigned PCPs more than 30 miles from their home obtaining more medical care near their home, than beneficiaries who are not assigned PCPs more than 30 miles from their home?

Activity 3. SELECT STUDY INDICATOR(S)	
3.1. The study has objective, clearly defined, measurable indicators.	Indicators identified for these study questions are: 1. The percent of beneficiaries whose assigned PCP is more than 30 miles from their home who had at least one medical office visit within 10 miles of their assigned PCP. 2. The percent of beneficiaries who had medical office visit and emergency room utilization. 3. The percent of beneficiaries whose assigned PCP is more than 30 miles from their home, who had at least one medical office visit within 30 miles of their home. 4. The percent of beneficiaries who had at least one emergency room visit during the study period.
3.2. The indicators measure changes in health status, functional status, or enrollee satisfaction, or valid proxies of these outcomes.	These indicators are intended to quantitatively measure access to PCPs within the provider network for HW XIX and HW XXI enrollees in Kansas.
Activity 4. USE A REPRESENTATIVE AND GENERALIZABLE STUDY POPULATION	
4.1. The at-risk population is defined.	The entire HW XIX and HW XXI population was considered at risk for access issues.
4.2. If the study includes the entire population, the data collection approach captures all enrollees to whom the study question applies	The HW XIX and HW XXI beneficiaries who were assigned PCPs more than 30 miles from their home during the two previous focused studies are eligible for inclusion in this focused study. The study will include the population of each program except for those beneficiaries excluded for the following reasons: ▪ Beneficiaries who were assigned a PCP less than 30 miles from home in both previous focused studies ▪ Beneficiary who were assigned a PCP more than 30 miles from home in one study and less than 30 miles in the other study ▪ Beneficiaries address city changed ▪ PCP address city changed There were 1,245 HW XIX beneficiaries, and 848 HW XXI in this focused study. How the study population was determined is provided below by program. <u>HealthWave XIX</u> 59,018: Beneficiaries in November 2005 study

	62,821: Beneficiaries in April 2006 study 41,269: Beneficiaries in both studies -740: Beneficiaries who were assigned a PCP > 30 miles from home in one study, and < 30 miles in the other study -1,581: Beneficiary address city changed -1,550: PCP address city changed -37,084: Beneficiaries who were assigned a PCP < 30 miles from home in both previous studies (comparison group) 1,245: Beneficiaries in this focused study <u>HealthWave XXI</u> 27,233: Beneficiaries in November 2005 study 29,534: Beneficiaries in April 2006 study 20,261: Beneficiaries in both studies -259: Beneficiaries who were assigned a PCP > 30 miles from home in one study, and < 30 miles in the other study -329: Beneficiary address city changed -888: PCP address city changed -18,243: Beneficiaries who were assigned a PCP < 30 miles from home in both previous studies (comparison group) 848: Beneficiaries in this focused study
Activity 5. USE SOUND SAMPLING TECHNIQUES	
5.1. The sampling technique considers and specifies the true frequency of occurrence, the confidence interval and the margin of error.	Not applicable. The entire HW XIX and HW XXI population was used in this study.
5.2. A sufficient number of enrollees are sampled.	Not Applicable.
5.3. Valid sampling techniques are used.	Not Applicable.
Activity 6. RELIABLY COLLECT DATA	
6.1. The data to be collected are clearly specified.	The following data were collected: ▪ Beneficiary name ▪ Beneficiary identification number ▪ Beneficiary address ▪ Beneficiary PCP assignment

	▪ Assigned PCP address ▪ Medical Office and Emergency Room Visit encounters ▪ Attending / performing provider address
6.2. The sources of data are clearly specified.	Sources of data used for this study include automated data obtained from EDS and/or Centene, the parent company of FirstGuard, the only MCO in Kansas currently providing a managed care program for HW XIX and HW XXI beneficiaries. These data sources include: ▪ Beneficiary Demographics Table (from EDS) ▪ Beneficiary Assignment and Eligibility Table (from EDS) ▪ Beneficiary PR2 Table, which links the beneficiary with the assigned primary care provider (from Centene) ▪ Primary Care Provider Master File, which provides primary care provider addresses (from EDS)
6.3. The methods of collecting data are clearly defined.	Data from EDS was collected through routine automated receipt of data files. Data from Centene was collected via Centene's submission of routine provider file submission.
6.4. The data collection instruments provide for consistent, accurate data collection.	No data collection instruments were used. The above sources of data originate from EDS or Centene and are believed to be reliable. As is acceptable within the parameters of the protocol, the data obtained from these sources will not be independently validated by KFMC. KFMC will do preliminary analyses to verify that linkage algorithms are logically correct and provide results that accurately reflect the locations of the beneficiaries and the locations of the currently assigned PCP.
6.5. The study design specifies a data analysis plan.	Actual distance calculated between beneficiaries and assigned PCPs were determined by averaging two methods of calculating distance: 1) "as the crow flies" and 2) on horizontal and vertical planes. After the target populations were identified, the data obtained was stratified as follows: ▪ Medical office visits ▪ Emergency Room utilization Chi-Square tests were performed to determine statistically significant differences between the study group, and a comparison group, as well as between HW XIX and HW XXI. Medical office visit codes used were: 99024, 99050, 99052, 99054, 99058, 99201, 99202, 99203,

	99204, 99205, 99211, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99381, 99382, 99383, 99384, 99385, 99386, 99387, 99391, 99392, 99393, 99394, 99395, 99396, 99397, 99401, 99402, 99403, 99404, 99411, 99412, 99420, 99421, 99422, 99423, 99424, 99425, 99426, 99427, 99428, 99429, 99450, 99451, 99452, 99453, 99454, 99455, 99456, and 99499 Emergency room codes used were: 9281, 99282, 99283, 99284, 99285, and 99288
6.6. Qualified staff and personnel are used to collect the data.	KFMC's Senior Health Data Analyst has a Doctoral Degree in Mathematics, and has been the primary analyst assigned to producing the provider mapping deliverables and several related projects in the last four years. Additional roles held include analyst for the nursing home and physician office quality improvement projects. KFMC's Project Manager has a Masters Degree in Business Administration, and managed the previous mapping focused study that this focused study will be compared to.
Activity 7. ANALYZE DATA AND INTERPRET STUDY RESULTS	
7.1. Analysis of findings conducted according to the data analysis plan.	Analysis occurred as planned in Activity 6.5.

7.2. Results and findings present numerical data in a way that provides accurate, clear and easily understood information.	<u>HealthWave XIX</u>
	▪ 690 (55.4%) female and 555 (44.6%) male
	▪ 175 (14.1%) Hispanic and 1,070 (85.9%) non-Hispanic
	▪ 1,006 (80.8%) White and 239 (19.2%) non-White
	▪ Of the 1,245 beneficiaries, 766 (61.5%) had at least one medical office visit.
	▪ Of 766 beneficiaries with a medical office visit:
	  ▪ 473 (61.7%) had at least one visit with a provider within 30 miles from their home.
	  ▪ 358 (46.7%) had at least one visit with a provider within 10 miles of their assigned PCP.
	  ▪ 408 (53.3%) had more visits closer to home than within 10 miles of their assigned PCP.
	  ▪ 380 (49.6%) had visits within 30 miles of home and no visits within 10 miles of their assigned PCP.
	  ▪ 127 (33.4%) had at least one emergency room visit
	  ▪ 265 (34.6%) had visits within 10 miles of the

	assigned PCP, and no visits within 30 miles of their home. ▪ 93 (12.1%) had visits within 30 miles of home, and within 10 miles of the assigned PCP. ▪ 28 (3.7%) visited providers outside both the 30-mile radius of their home, and the 10-mile radius of the PCP. ▪ Of the 1,245 beneficiaries, 345 (27.7%) had at least one emergency room visit. <u>HealthWave XIX Comparison Group</u> ▪ 20,660 (55.7%) female and 16,424 (44.3%) male ▪ 6,772 (18.3%) Hispanic and 30,312 (81.7%) non-Hispanic ▪ 25,138 (67.8%) White and 11,946 (32.2%) non-White ▪ Of the 37,084 beneficiaries in the comparison group: ▪ 23,250 (62.7%) had at least one medical office visit ▪ 9,722 (26.2%) had at least one emergency room visit ▪ 265 with a medical office visit within 10 miles of their PCP, but not within 30 miles of their home, 74 (27.9%) had an emergency room visit. <u>HealthWave XXI</u> ▪ 378 (44.6%) female and 470 (55.4%) male ▪ 307 (36.2%) Hispanic and 541 (63.8%) non-Hispanic ▪ 767 (90.4%) White and 81 (9.6%) non-White ▪ Of the 848 beneficiaries, 404 (47.6%) had at least one medical office visit. ▪ Of 404 beneficiaries with a medical office visit: ▪ 170 (42.1%) had at least one visit with a provider within 30 miles from their home. ▪ 217 (53.7%) had at least one visit with a provider within 10 miles of their assigned PCP. ▪ 129 (31.9%) had visits within 30 miles of home and no visits within 10 miles of their assigned PCP. ▪ 112 (13.2%) had at least one emergency room visit ▪ 176 (43.6%) had visits within 10 miles of the assigned PCP, and no visits within 30 miles of their home.

	▪ 41 (10.1%) had visits within 30 miles of home, and within 10 miles of the assigned PCP. ▪ 58 (14.4%) visited providers outside both the 30-mile radius of their home, and the 10-mile radius of the PCP. <u>HealthWave XIX Comparison Group</u> ▪ 8,931 (49.0%) female and 9,312 (51.0%) male ▪ 4,084 (22.4%) Hispanic and 14,159 (77.6%) non-Hispanic ▪ 14,428 (79.1%) White and 3,815 (20.9%) non-White ▪ Of the 18,243 beneficiaries in the comparison group: ▪ 11,037 (60.5%) had at least one medical office visit ▪ 2,767 (15.7%) had at least one emergency room visit ▪ 176 with a medical office visit within 10 miles of their PCP, but not within 30 miles of their home, 24 (13.6%) had an emergency room visit.
7.3. The analysis identifies measurable results in comparison to identified goals and benchmarks, factors that threaten internal and external validity, statistical significance of apparent differences between units of comparisons, and factors that influence the comparability of data.	This study used beneficiaries that were assigned to PCPs less than 30 miles from their home as a comparison group for assessing indicator rates. Also, tests for independence of demographic variables (gender, race, and ethnicity) and inclusion into the study population were conducted.
7.4. The analysis includes an interpretation of the extent to which the study was successful and follow-up activities.	Analysis of the data identified areas of beneficiary access to their PCP for further research. Findings were: ▪ Analyze data to determine the types of services beneficiaries are receiving more than 30 miles from their residence, compared to services beneficiaries are receiving from providers closer to their homes. ▪ Since KFMC concluded that beneficiaries are receiving medical care from providers other than their assigned PCP (at times closer to home, other times further away from home) more research should be conducted to determine specifically how far beneficiaries are traveling to receive what types of services, from providers other than their assigned PCP.
7.5. **Record any additional comments pertinent to the design and/or conduct of the study:** none	