

GIS Mapping as a Policy Tool in Support of Capacity Planning for the Kansas Association for the Medically Underserved, (KAMU)



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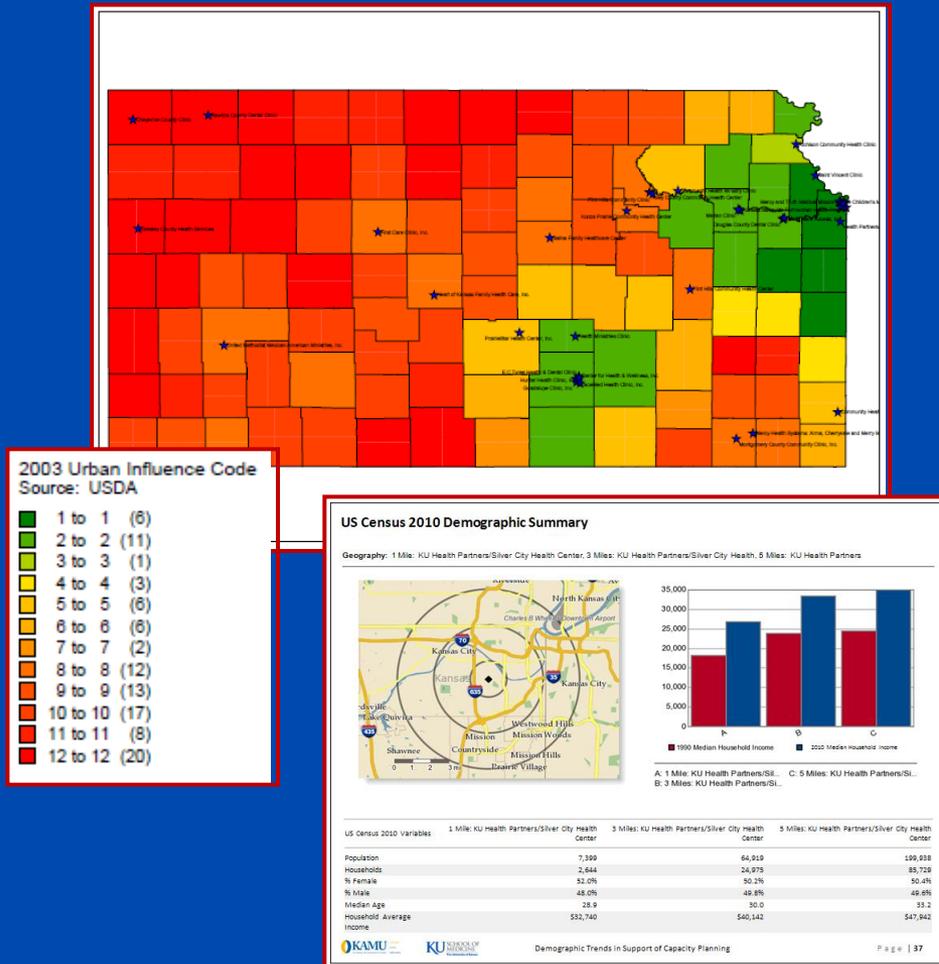
Fall 2012

Executive Summary

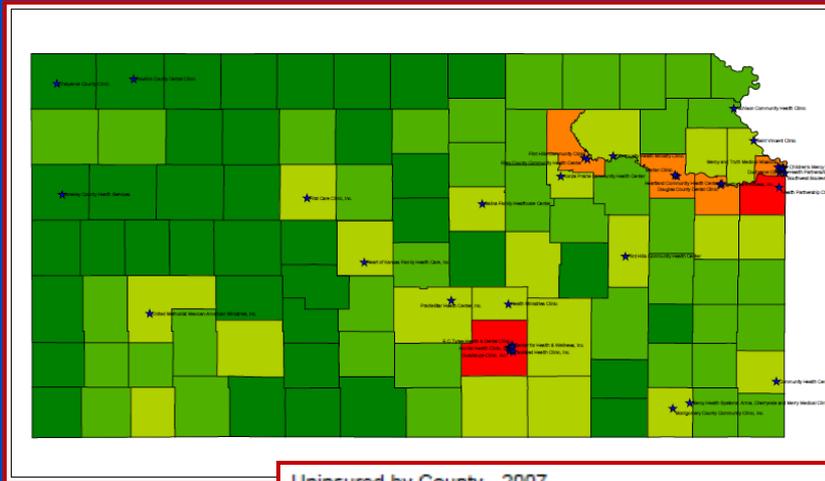
- The Kansas Association for the Medically Underserved (KAMU) is expecting capacity related challenges in the next three to five years based on the expansion of Medicaid in 2014.
- The Kansas Health Institute (KHI) October 2011 report on the Impact of Health Reform on Insurance Benefits and Mandates in Kansas provides estimates that KAMU member organizations will face a significant strain on current resources due to impact of the Affordable Care Act (ACA) to reduce the number of uninsured Americans.
- Estimated numbers for the newly covered will be: Newly eligible for Medicaid: +130,000.
- This report provides a comparison of demographics for 39 KAMU member organizations and graphic representation of target counties that have the highest propensity for increased capacity needs.
- This analysis also identified 3,562 health businesses that focus on seven areas related to the KAMU mission.
- These entities could include targets for membership recruitment or education and promotion efforts throughout the state to advance the mission and vision of the organization and to improve the visibility of insurability issues for all Kansans.

Methods

- Methods included the integration of data from disparate sources including:
 - KAMU
 - U.S. Census
 - U.S. Department of Agriculture
 - Dun & Bradstreet
- Thematic mapping using MAPinfo[®] provided results that project more than 130,000 residents, newly eligible for Medicaid in Kansas.
- Geocoding and plotting KAMU member organizations, and 3,562 health care businesses that focus on seven areas related to the KAMU mission.

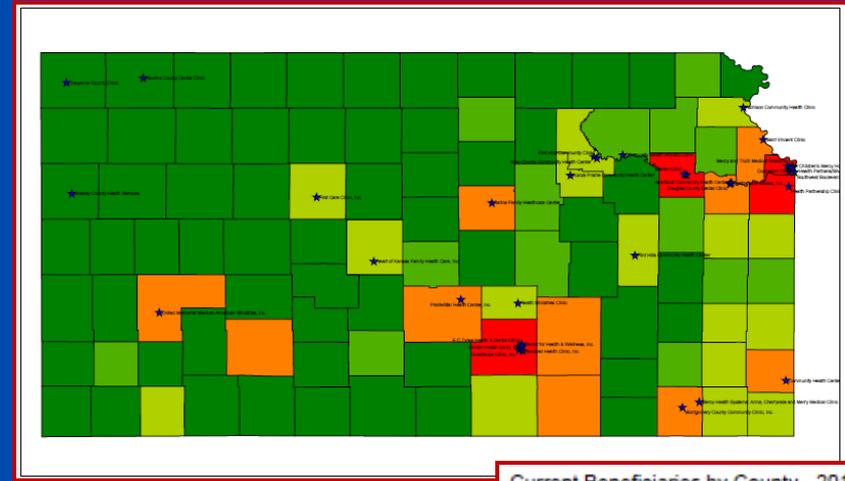


Results and Analysis



Uninsured by County - 2007
 Source: Small Area Health Insurance Estimates, US Census Bureau

43,201 to 63,100	(2)
11,901 to 43,200	(4)
2,301 to 11,900	(21)
701 to 2,300	(40)
700 or Less	(38)



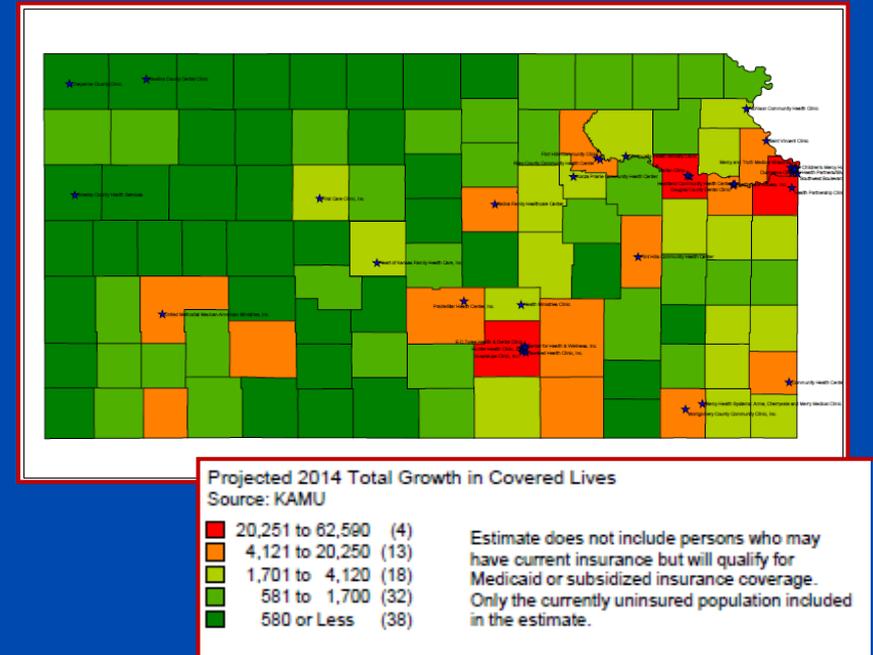
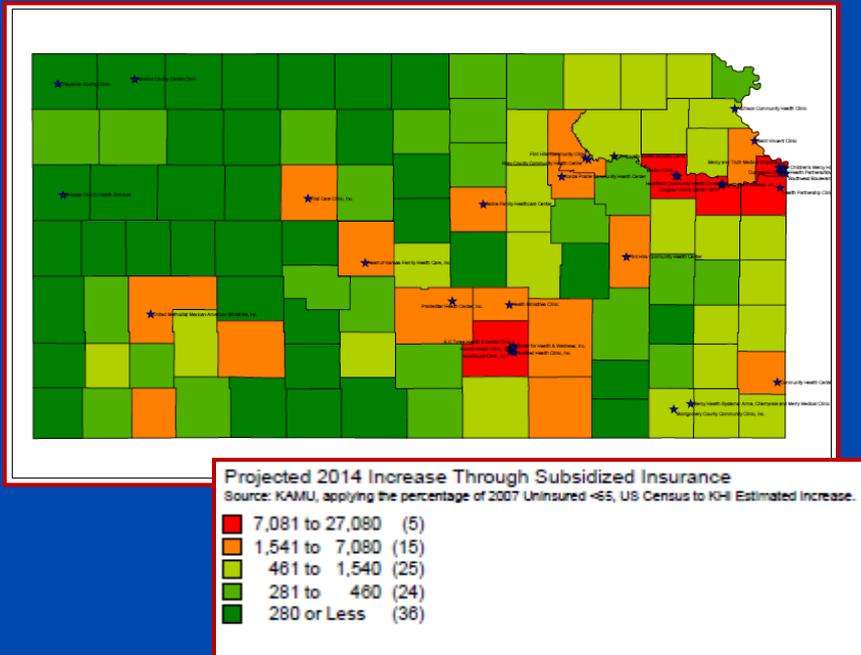
Current Beneficiaries by County - 2011
 Source: KAMU

26,001 to 71,000	(4)
5,001 to 26,000	(10)
2,001 to 5,000	(16)
1,001 to 2,000	(14)
Less than 1,000	(61)

Where are the uninsured who would effect capacity planning to serve the community need?

Where are current KAMU beneficiaries?

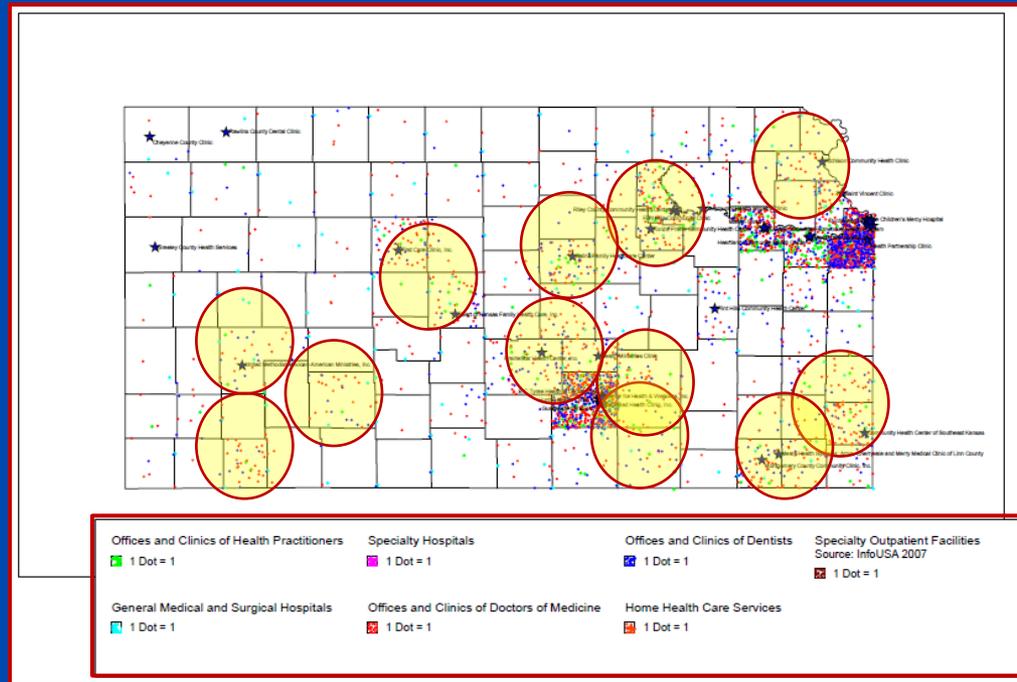
Results and Analysis



What counties will experience strain on current resources?

Where will the total impact of the ACA have the most significant effect on KAMU members?

Recommendations and Conclusions



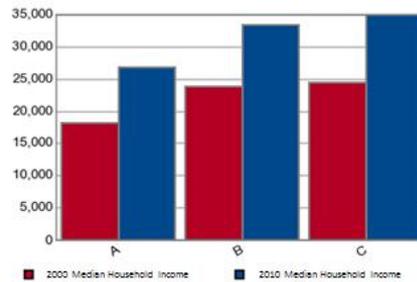
- This analysis identified 3,562 health businesses that focus on areas related to the KAMU mission
- Targets for membership recruitment
- Education and promotion efforts
- Improve the visibility of insurability issues in the State of Kansas

Is the burden from the ACA mandate the sole responsibility of KAMU?

Future Growth and Services

US Census 2010 Demographic Summary

Geography: 1 Mile: KU Health Partners/Silver City Health Center, 3 Miles: KU Health Partners/Silver City Health, 5 Miles: KU Health Partners



A: 1 Mile: KU Health Partners/Silver City Health Center
B: 3 Miles: KU Health Partners/Silver City Health
C: 5 Miles: KU Health Partners/Silver City Health

US Census 2010 Variables	1 Mile: KU Health Partners/Silver City Health Center	3 Miles: KU Health Partners/Silver City Health Center	5 Miles: KU Health Partners/Silver City Health Center
Population	7,399	64,919	199,938
Households	2,644	24,975	85,729
% Female	52.0%	50.2%	50.4%
% Male	48.0%	49.8%	49.6%
Median Age	28.9	30.0	33.2
Household Average Income	532,740	540,142	547,942



KU Health Partners - Silver City Health Center
1428 S 32nd St - Kansas City, Kansas 66106

- Know your customers
- Develop policy based on integration of data from internal and external sources

Members in the Analysis

This study will focus on 39 member organizations as listed below:

Organization	Address	City	State	Zip
Johnson Community Health Clinic	227 M St	Johnson	KS	66002
Center for Health & Wellness, Inc.	270 E 2nd St	Wichita	KS	67214-2249
St. Francis County Clinic	222 W 9th St	St. Francis	KS	67214
Community Health Center of Southeast Kansas	3022 N Michigan St	Pittsburg	KS	66762
Community Health Center of Southeast Kansas	205 6th St	Wamego	KS	66682

Appendix 2 - KAMU County Data with FIPS County Codes Attached

County Name	2011 State Rank	2011 % of Beneficiaries	2008 % of Beneficiaries	Change in % of Beneficiaries (2008 to 2011)	Est 2014 Growth Rate	Est 2014 Growth Rate	Change in Total Beneficiaries (2011 to 2014)	State	City
Adair	220	0.0004	0.0004	0.0000	0.0000	0.0000	0	MO	0
Andrew	185	0.0028	0.0028	0.0000	0.0000	0.0000	0	MO	0
Atchison	220	0.0006	0.0007	0.0001	0.0000	0.0000	0	MO	0
Baker	480	0.0047	0.0037	-0.0010	0.0000	0.0000	0	MO	0

Recommendations

The information gathered for this report can provide KAMU and its members with significant background, resource data, to support the development of a strategic plan to face the significant strain on current resources anticipated by the impact of the Affordable Care Act (ACA) to reduce the number of uninsured Kansans.

The following summary provides a listing (based on KAMU forecast data) of target counties that have the highest propensity for increased capacity needs. As supported by the USDA Urban Influence Code map, these counties are more urban in nature and resource scalability should be less difficult to manage in these areas. Member organizations in these counties will probably face the highest impact on capacity and should rate a high priority in KAMU planning activities.

County	Projected Growth of Eligible Individual 2011 - 2018
Sedgewick	136033.5
Wyandotte	50627.23
Johnson	43832.16
Shawnee	39341.82
Renick	12976.64
Douglas	12217.46
Saline	19768.28
Crawford	9722.935
Finney	9418.285
Montgomery	8995.853

This analysis also provided the opportunity to identify 6,038 health related businesses in the state, and 3,362 health businesses that focus in the following areas that could include targets for membership recruitment:

SIC Code	SIC Code Descriptions	Number of Businesses
8011	Offices and Clinics of Doctors of Medicine	1,842
8021	Offices and Clinics of Dentists	1,056
8049	Offices and Clinics of Health Practitioners	435
8062	General Medical and Surgical Hospitals	175
8069	Specialty Hospitals	7
8082	Home Health Care Services	215
8093	Specialty Outpatient Facilities	82

KAMU could also use this list for education and promotion efforts throughout the state to advance the mission and vision of the organization and to improve the visibility of insurability issues for all Kansans. An electronic copy of this target file will be provided to KAMU.



Project Summary

- Importance of this research question –

Thousands of Kansas adults who today do not qualify for Medicaid will become eligible for the program by the expansion as mandated by the Affordable Care Act (ACA).

Members of the Kansas Association for the Medically Underserved (KAMU) can formulate policy and develop programs now, with the support of GIS technologies.

- Personal experience in the GIS field –

This project was an opportunity to apply my experience and ability in mapping, geocoding, and database marketing and analysis to a new field - health care policy.

- GIS and Health Policy and Management at KU and beyond –

This project led to providing maps for one of my professors for his research in Wyandotte County, and mapping support for teams in a graduate case competition. More HP&M students could benefit from seeing how GIS can enhance their research efforts, this is new to the department.

- Links to literature and additional research –

Health care currently contributes to 17.9% of U.S. GDP, it's a big business in need of innovative tools such as GIS. This project presents opportunities for additional research in public policy, social welfare programs, economic and business development, and government legislation.