Perspectives of Health Care Issues in Rural Kansas Communities: An Analysis of Strengths, Weaknesses, Opportunities, and Threats

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Abstract

Background. The purpose of this study was to develop a greater understanding of healthcare issues in rural Kansas communities.

Methods. Ten focus groups were conducted with rural community leaders.

Results. Community strengths included quality of life, community involvement, healthcare facilities, agency collaboration, and commitment to healthcare worker recruitment. Weaknesses were language barriers, aging population, healthcare workforce availability, physician and spouse recruitment, access to medical, dental and mental healthcare, poor oral hygiene, lack of transportation, and data collection issues. Community members identified several opportunities for rural Kansas, including the high quality of life, agency collaborations, public health education, and distance education. However, external threats affected communities, including economic decline, outmigration, poor farming industry, civic disinterest, growing rates of poverty, uninsured and vulnerable populations, high costs of health care, and funding shortfalls for school-based programs.

Conclusion. Efforts should be directed towards healthcare professional recruitment, support for vulnerable populations, public health education programs, and inter-agency collaborations.

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Introduction

The Census Bureau classifies 25% of the US population as rural.[1] Rural populations are declining because of lack of local jobs and the allure of big cities.[2,3] In addition, rural communities have greater health issues, such as higher prevalence of obesity,[4] higher rates of cancer, heart disease, diabetes and injury-related deaths,[5] and higher prevalence of chronic conditions.[6] This may be due in part to insufficient healthcare resources, difficulties in accessing healthcare,[6] and physician shortages.[7-10]

These issues, identified as global in nature,[6] also have been identified in Kansas, a predominantly rural state. Kansas, the 15th largest state, covers 82,282 square miles.[11] Kansas has 99 local public health departments (LHDs) that provide services to 2.9 million residents in 105 counties, that are urban, rural, and frontier. There is wide variation in public health capacity across Kansas, and rural and frontier areas have difficulty maintaining healthcare resources.[12] Moreover, rural Kansans may travel by car up to three hours to access healthcare at a large medical facility,[12] therefore, concerns identified by Kansas community focus groups have legitimate and supported bases.

The purpose of this focus group study was to identify community perceptions of

healthcare needs of rural Kansans and to understand better the perceived strengths and weaknesses of those communities.

Methods

Sampling and recruitment procedure. Key community stakeholders[13] from six rural regions of Kansas were identified as potential participants by community chambers of commerce and health departments. Focus group locations included: Arkansas City, Atchison, Chanute, Emporia, Garden City, Hays, Hutchinson, Phillipsburg, Salina, and Ulysses. Participants were recruited from several community groups at each location and surrounding communities including: chambers of commerce, local elected and government officials, education administration, public health and community-based social services, local/regional hospitals and health care providers, local businesses, and faith-based groups. Participants were recruited via telephone, mail, and/or e-mail using contacts provided by key stakeholder organizations. The study purpose was explained and an invitation to participate was offered. Up to 15 volunteer participants were scheduled per focus group. A meal was provided in compensation for participation.

Focus group procedure. Focus group recruitment, facilitation, and analysis followed the standards offered by Debus.[14] Institutional Review Board approval was obtained. Demographic data was collected after informed consent was obtained and included age, gender, and profession/ employment sector. Focus group discussion questions included identification of both community and healthcare strengths and weaknesses. Interviews lasted approximately one and one-half hours each. Each focus group session was staffed and audio-taped by two trained moderators.

Data analysis procedure. Theme categorization was developed based on independent transcript review by two researchers. Inter-rater reliability was satisfactory (Kappa = 84.9).[15] Disparities in coding were addressed by mutual consensus.

The most common themes were organized based on a strength, weakness, opportunity, and threat (SWOT) analysis.[16,17] The purpose of a SWOT analysis is to identify opportunities for success in the context of threats, and determine where change is possible. Themes were categorized as internal (resources and experiences) or external (forces outside of the communities' control) and positive or negative (see Figure 1). Internal components were labeled as either strengths or weaknesses, while external components were labeled opportunities or threats.

Results

Participants. Seventy-six volunteers participated in ten focus groups with approximately eight participants per group. Participants were mostly female (68.4%) and aged 50 or older (71.1%). Thirty-eight percent of participants were in a health profession other than physicians, nurses, advanced practice practitioners and 38% were involved in business or another non-health related profession. Twenty-nine percent had lived at least 25 years in their current community.

Demographic characteristics of focus group locations are listed in Table 1 and compared to state and national percentages in race, language, poverty, and elderly rates. Half of the communities represented could be considered micropolitan,[18] where a moderately-sized community mixes with the rural area. Compared to state and national percentages:

- 80% experienced declining populations
- 90% have lower than median household incomes
- 30% have higher poverty rates

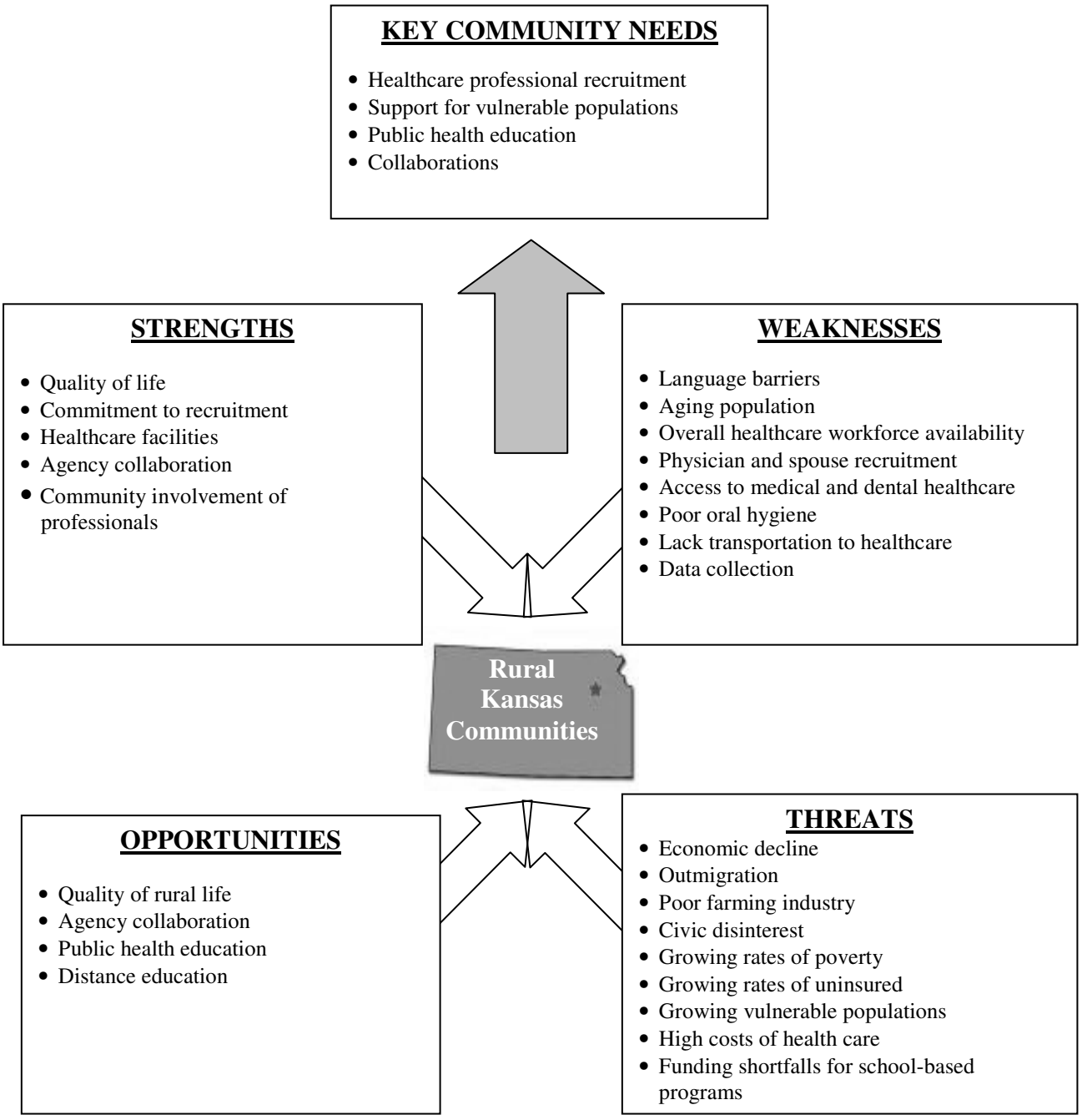

Figure 1. SWOT analysis of health care concerns in rural Kansas communities.

- 20% have more non-English speakers living at home
- 20% have higher populations of 65 year olds or older
- 50% have higher Hispanic populations

Local demographic statistics validate concerns commonly identified in focus group comments such as declining population rates, increasing poverty rates, and increasing vulnerable populations.

Perceived community strengths. Comments indicated strong work ethic, volunteerism, motivation, and a "willingness to help others" as the most significant contributors to community success. Quality of life characteristics, such as local fine arts and community events, a high quality educational system, and a "slower pace of life", also were considered strengths. Volunteerism, collaboration between community agencies, and a sense of "pulling together" were cited as key to community cohesion. Finally, ethnic diversity was reported as a positive factor.

Participant comments reflected pride in local healthcare facilities citing strong partnerships between regional hospitals, community health centers, and health departments. Most volunteers described community-wide efforts to recruit new health providers and to "get students interested in health careers". Efforts included providing incentives and scholarships to local nursing programs to entice students to practice in rural areas.

Perceived community weaknesses. Although an increasingly diverse population was cited as positive, it also was described as a challenge due to language barriers posed by non-English speaking residents (refer to Table 1 for language rates). There was a commonly held concern about the potential decline of community volunteers as most are from the aging retired population (refer to Table 1 for aging population comparison). Both the increasing age of the workforce as well as the increasing needs of senior citizens were considered future problems.

Participants expressed concerns about overall workforce availability in the health field and agreed it was difficult to recruit and retain physicians, particularly specialty physicians, despite facility improvements, state of the art diagnostic equipment, and competitive wage packages. Issues identified in physician turnover included retirement, physician burn out, and the community being used as a "stepping stone" to an advanced position in an urban setting.

A common challenge regarding spouse recruitment emerged. Physician spouses may seek community attributes that are non-existent in rural settings. Focus group participants reported that local strategies for health professions recruitment included financial, facility, and family incentives. However, rural communities found it difficult to compete with salaries provided in urban communities.

Access to dental care was mentioned by participants of several focus groups. Areas of concern included poor oral health habits and tooth decay among children, lack of pediatric dental providers as well as transportation barriers. One community reported trying to provide free general health education to clinic patients while they waited for medical appointments, however, patients were unresponsive. Low-income families without reliable transportation were reported to have been affected the most. In addition, scarce mental health resources were discussed. Collection of state and local health data was reported as a frustrating and daunting task.

Perceived community opportunities. Participants perceived their communities' strengths as their opportunities. The same components that make their community strong (strong work ethic, volunteerism, motivation, and a "willingness to help others") were identified as capacity building if properly nurtured and mobilized. Characteristics that epitomize the quality of rural life that small communities' offer should be the platform to attract new professionals. Volunteerism, collaboration, and involvement among community agencies and a sense of "pulling together" also were cited as key to community improvements.

Table 1. Demographic information about rural Kansas focus group locations.

	Population			2006 Income	2000 Race			Population Characteristics		
Region	2000	2007*	% Change	Median household income	White (%)	Hispanic (%)	Black (%)	2000 Non-English speaking (%)	1999 Below poverty (%)	2000 Age 65+ (%)
Arkansas City	11,963	**11,168**	**-6.5**	$31,000.00	85.3	4.5	4.5	---	---	---
Atchison	10,232	**10,078**	**-1.4**	$33,800.00	87.1	2.6	7.8	---	---	---
Chanute**	9,411	**8,854**	**-6.2**	$32,500.00	91.2	3.9	1.4	---	---	---
Emporia	26,760	**26,662**	**-1.1**	$33,400.00	71.1	21.5	3.0	19.8	17.9	11.0
Garden City**	28,451	**26,629**	**-6.0**	$41,000.00	49.8	43.9	1.5	39.6	14.3	8.1
Hays**	20,013	20,106	+0.2	$34,200.00	94.4	2.6	0.8	---	---	---
Hutchinson	40,787	40,668	+0.2	$35,400.00	85.4	7.7	4.3	5.5	12.7	16.9
Phillipsburg**	2,668	**2,372**	**-10.9**	$39,400.00	96.9	0.9	0.0	---	---	---
Salina	45,679	46,458	+1.1	$39,100.00	85.4	6.7	3.6	7.7	9.6	14.3
Ulysses**	5,960	**5,630**	**-5.9**	$46,300.00	60.7	37.5	0.0	---	---	---
State of Kansas	2,688,418	2,764,075	+1.1	$45,478.00	83.1	7.0	5.7	8.7	9.9	13.3
USA	281,421,906	301,621,157	+1.1	$50,233.00	69.1	12.5	12.3	17.9	12.4	12.4

Note. Dashes indicate the information was not available. The population, race, and income data are from American Fact Finder, US Census Bureau Web site (http://www.factfinder.census.gove/home/saff/main.html) and from city-data.com website (http://www.city-data.com/city/Kansas.html).

* Declining populations indicated in **bold type**.

** Cities are greater than a 100-mile distance from the nearest Kansas metropolitan (Kansas City or Wichita) health source (http://www.ksdot.org/burtransplan/dist_chrt.cgi).

The availability and provision of public health education by academic institutions is desired to promote positive physical, dental, and mental health habits. Participants campaigned for increased utilization of distance education venues to increase health education opportunities.

Perceived community threats. Participants stated their downtown businesses have experienced economic decline due to loss of retail business to larger cities. Lack of retail, fine dining, entertainment opportunities as well as low-paying jobs and higher local taxes were believed to be associated with the increasing outmigration of and inability to attract young employable adults. Other economic factors such as the decline of the farming industry and few jobs for youths also were reported as challenges. Although, participants listed collaboration as a strength, they reported that there is declining interest in community issues by local residents.

A consensus opinion across all groups was concern about the growing rates of poverty, single parent families, and free/ reduced lunches (refer to Table 1 for poverty comparisons). Several communities concurrently voiced concerns regarding increased demand for affordable health and dental care while reporting decreasing availability of healthcare services for un- and under-insured populations. Healthcare providers reported frustration with care seeking behaviors of low income patients such as appointment no shows, which could result in fewer physicians accepting public insurance patients. School-based health programs were reported as "vital" but threatened by funding shortfalls.

Participants from several communities voiced concerns about the high cost of health insurance. Premiums and prescription medications were reported as "prohibitive" for many people, leading un- and under-insured residents to delay or avoid preventive care due to rising costs. Urgent care had been discontinued by one community hospital due to the overwhelming demand for charity care. Many community-based businesses had reduced their health coverage, required higher deductibles or only hired part-time employees as an economic solution. Finally, participants suggested state insurance policies present a barrier because "Kansas doesn't allow self-insured pools of different types of businesses".

Discussion

Rural Kansans need support in healthcare recruitment, local continuing education for health-care providers, public health education, and solutions for problems working with vulnerable populations. Hart et al.[19] reported that multifaceted solutions are necessary. Furthermore, respondents expressed the desire for support "without having to write a grant".

Healthcare professional recruitment. Comments from our investigation reflected a strong rural community concern about healthcare workforce availability. Physician shortages combined with hospital closures create barriers for rural residents to access health care.[7] This concern addressed not only physician practitioners but also shortages in nursing, allied health, dental, and mental health providers, reflecting a critical need for healthcare professionals in general to practice in underserved areas.[6,8-10]

Crump et al.[20] recommended that medical educators should consider geography more carefully when designing solutions to the maldistribution of physicians and admit more medical students from rural areas. Longer rural rotations have been suggested to encourage physician retention.[21] Because rural medical practice is substantially different from urban, several authors recommended that rural medical practice[8,22] and general surgery[23] be

recognized as a distinct discipline. Charleston and Goodwin promoted preceptorship to improve recruitment and retention of rural mental health nurses.[24]

Telemedicine as an incentive has shown mixed results as a solution for recruiting and retaining physicians in rural communities. Sargeant et al.[25] reported that while telemedicine was used more frequently by most rural physicians, it actually was rated low in importance for retention. Some advocated that telemedicine may help address the healthcare needs of rural elderly,[26] however, others suggested that telemedicine may not be beneficial to older homecare patients.[26,27]

Focus group participants commented on the shortage of dental professionals previously reported.[7,28,29] Additional comments indicated that few dental providers will accept Medicaid patients. Krause et al.[30] suggested less restrictive supervision of dental hygienists might address the acute problems of poor oral health and access to dental care issues for rural states.

Vulnerable populations. Focus groups from each community voiced concerns about vulnerable populations including the elderly, the culturally diverse, and those with low income. The national rural population is older,[7] increases in rural populations are due to diverse ethnic immigration,[3] and the increasing number of poor people is the number one problem facing rural America.[31] Furthermore, residents of rural areas are more likely to be uninsured and for a longer period of time than urban.[7] Rural residents have been reported as less likely to be offered health benefits through their employment due to discrepancies between rural and urban insurance rates, thus policy changes may be necessary.[7,32]

Public health education. Nearly every community represented described the need to educate the general population about healthy lifestyle issues including nutrition, obesity, primary dental care, smoking, crisis management, lead levels, and general health. Solutions included home-based services and training as well as health education advocates. Geiger indicated that the provision of educational opportunities was the key to the development of health-related social change,[33] while Auchincloss and Hadden examined predictors of excess morbidity in rural areas and concluded that there was a need to improve education in disadvantaged places.[34]

Community collaboration. Collaboration between community agencies, social organizations, and businesses was reported as the largest contributor to community successes. However, those communities that reported successful programs did not believe services were sufficient to meet current and future needs. The World Health Organization and the Institute of Medicine suggested that strong and active community involvement contributes to successful health systems,[35,36] while Ryan-Nichols promoted partnerships with rural communities as part of strategies to promote rural health.[10]

Study limitations may include selection bias. As focus group participants only included people with sufficient time and interest, opinions noted here may not represent all rural citizens.

Conclusions

Problems facing rural communities in Kansas are similar to problems in rural communities from other states. According to Sarason[37], many social problems are intractable in nature. Issues such as poverty and lack of resources will never be solved in the sense that there is a single "solution" to be applied in every situation so that the "problem" no longer exists. Problems such as difficulty recruiting in rural areas, un- and under-insured persons, and limited funding

for healthcare initiatives are not new problems, and most likely will never be solved entirely. This is not to suggest that nothing should be done to address the issues and try to improve the outcomes. Sarason also suggests that we must consider the history of the problem and changes in both society and technology in our attempts to address these issues.[37] It is important for governments to stay apprised of current, evidence-based solutions, however, health reform policies must be tailored to local needs to account for variations across states.[7] Thus efforts should be directed towards healthcare professional recruitment, support for vulnerable populations, public health education programs, and inter-agency collaborations.

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