RURAL WOMEN'S PERCEPTIONS OF AVAILABILITY, DEVELOPMENT AND MAINTENANCE OF RURAL BUILT ENVIRONMENTS

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ABSTRACT

Background: Obesity is a worldwide concern. Physical activity is one way to address obesity. The environment surrounding individuals can impact activity choices.
Design/Methods: Multiple, description, explanatory case study design, multiple-methods (focus groups, individual interviews, archival data collection, sidewalk maintenance evaluation)
Findings: Women participants perceived community economic resources as an influencing factor for availability, development, and maintenance of rural built environments conducive to physical activity. These women participants also identified women speaking out and 'being heard' as influencing availability and maintenance of built environments, and advancing age with reduced physical ability influenced the maintenance of resident-owned rural built environments.
Conclusions: There are many policy indications for local nurses advocating for rural populations including the consideration of built environment as a factor in health promotion and treatment (diabetes, obesity).

INTRODUCTION

Obesity is a worldwide concern resulting in disease and disability (World Health Organization, 2003). While the effects of obesity can be seen in all groups of people worldwide, the population that is currently the most profoundly affected is women (James, Leach, Kalamara, & Shayeghi, 2001) residing in rural areas in the United States (Jackson, Doescher, Jerant, & Hart, 2005; Patterson, Moore, Probst, & Shinogle, 2004). The problems of obesity relate to the built environment of rural communities and the shift in lifestyles of rural women which has led to decreased physical activity, resulting in an increase in morbidity and mortality (e.g. obesity, diabetes, cardiovascular disease). In rural populations in the United States, obesity results primarily from low density nutritional intake (Ledikwe et al., 2003) and limited physical activity (Eberhardt, Ingram, & Makuc, 2001; Tai-Seale & Chandler, 2003).

This multiple, descriptive, explanatory case study design employed multiple methods of data collection to determine the perceived influences of the availability, development and maintenance of rural built environments by rural women. Women participants in this study perceived limited economic resources as restricting availability, development, and maintenance of rural built environments conducive to physical activity. In addition to limited economic resources, speaking out and "being heard" by those in formal power positions influenced availability. Finally, women identified that their advancing age and physical ability, or lack of ability, impacted how well they maintained built environments associated with their own property (e.g. sidewalks in front of their homes). Following the background and research methods the findings are reported. The findings include reports on the limited economic resources, speaking out and "being heard" by those in formal positions of power, and their age

and physical ability as perceived by the rural women participants. In conclusion, case study assertions, implications for nursing practice and policy, and recommendations are made.

BACKGROUND

Rural adults in the United States are disproportionately more likely to be obese than their urban counterparts (Grandinetti, Chang, Theriault, & Mor, 2005; Jackson et al., 2005; Nothwehr & Peterson, 2005; Patterson et al., 2004; Polley, Spicer, Knight, & Hartley, 2005). Jackson et al. (2005) analysed data from the Behavioral Risk Factor Surveillance System (BRFSS) in 1994-1996 (N=342,055) and in 2000-2001 (N=385,384) and found an increase in the prevalence of obesity for rural residents of every state except Florida. This study used an expansive definition of rural which includes areas adjacent to metropolitan areas as well as areas with 10,000 or fewer residents (Jackson et al. 2005). This self-reported, telephone survey research provided a broad-brush analysis of rural population trends (Jackson et al. 2005).

Patterson et al. (2004) analyzed data from the 1998 National Health Interview Survey (32,440 interviews) and concluded that there was a high prevalence of rural adults who were both obese (20.4%) and inactive (rural 62.8% versus urban 59.3%). Furthermore, they concluded that additional research with rural populations addressing interventions for physical inactivity was warranted (Patterson et al. 2004). While there are studies that provide important insights into rural communities, Patterson et al. (2004) did not identify a definition for "rural" and Northwehr and Peterson (2005) focused on a very rural county. One intervention to address obesity is to increase physical activity levels. Women are less physically active than men and social factors influence their participation in physical activity (Swenson, Marshall, Mikulich-Gildbertson, Baxter, & Morgenstern, 2005).

Women and Physical Activity

Physical activity patterns of women influence their health and wellbeing. Women tend to be less physically active than men ($p < 0.0001$) (Swenson et al., 2005); furthermore, physical activity levels are known to influence chronic disease progression, treatment, and prevention of both men and women (Perdue, Gostin, & Stone, 2003). Numerous studies have focused on women, their lives, physical activity levels, social support, and environmental influences (Evenson, Eyler, Wilcox, Thompson, & Burke, 2003; Evenson, Sarmiento, Tawney, Macon, & Ammerman, 2003; Eyler, 2003; Eyler et al., 2003a, , 2003b; Eyler & Vest, 2002; McCarthy et al., 2002; Sanderson, Cornell et al., 2003; Sanderson, Foushee et al., 2003; Thompson, Wolfe, Wison, Pardilla, & Perez, 2003). These studies found that when facilities were unavailable both urban and rural populations were less likely to be active, and women were more likely to be influenced by lack of facilities.

Rural Built Environment

A number of research studies regarding built environment and physical activity have been conducted with rural populations, using varying population definitions. Telephone surveys in rural areas (Brownson et al., 2000; Deshpande, Baker, Lovegreen, & Brownson, 2005; Wilcox, Bopp, Oberrect, Kammermann, & McElmurray, 2003), focus groups with survey design (Bopp, Wilcox, Oberrect, Kammermann, & McElmurray, 2004), and quasi-experimental survey design (Brownson et al., 2004) have all provided valuable introductory data for rural populations.

However, with the exception of Eyler et al. (2003), only two studies have specifically addressed the needs of women in relation to physical activity in rural areas (Bopp et al. 2004; Wilcox et al. 2003). The missing element in these studies is a comprehensive investigation into rural communities and how community members' use built environments to achieve physical activity.

Physical Activity and Built Environment

The Eyler at al. (2003a) research was important in identifying built environment factors as critical to physical activity among rural women. The rural white female population (n=1,000) that Eyler (2003) studied as a subgroup of the larger study (Eyler et al., 2003a) identified the top barriers to physical activity as: "(1) the remoteness of the rural environment, (2) lack of recreational facilities, and (3) not enough sidewalks" . Specifically, Eyler et al, (2003a) suggested that built environment may be a deterrent to or, in reverse, can be a powerful influence to increase physical activity levels. Srinivasan, O'Fallon, and Dearry (2003), defined built environments as "human-modified places such as homes, schools, workplaces, parks, industrial areas, farms, roads and highways" . This study addressed built environments that are conducive to physical activity, such as sidewalks, trails, and community centers.

Much of the work done around built environments and how these environments encourage physical activity has focused on urban and suburban locations (Brownson, Baker, Housemann, Brennan, & Bacak, 2001; Carnegie et al., 2002; Dannenberg et al., 2003; Giles-Corti & Donovan, 2003; Leyden, 2003; Saelens, Sallis, Black, & Chen, 2003; Srinivasan et al., 2003). A great deal of research indicates that built environments contribute to an increase in physical activity, particularly walking (Brownson et al.2001; Carnegie et al., 2002; Giles-Corti & Donovan, 2003; Leyden, 2003; Saelens et al.2003). The policy influences on built environments and physical activity are important at all levels of government, addressed below are the local policy considerations.

Physical Activity and Local Policy

Local policies at the state, county or municipality levels that have an impact on the health of a community may include school district (physical activity, nutrition), transportation, zoning (land use, design), and funding priorities (Hayne, Moran, & Ford, 2004). Research in an Australian community found three key actions of local governments that support environments for physical activity (MacDougall, Wright, & Atkinson, 2002): (a) take a strategic versus an operational focus on the issue, (b) "have open organizational structures to allow the various functions of local government to work together" , and (c) have appropriate leadership. Two communities on the Arizona-Mexico border engaged special action groups to identify and guide local policies in a variety of community level interventions which included policy change (Meister & Guerney de Zapien, 2005). The similarities to these two approaches (MacDougall Wright & Atkinson, 2002; Meister & Guerney de Zapien, 2005) were the multifaceted approach to policy work. For example, one Australian study with rural local governments found that public health workers collaborating with local government leaders to place supportive environments for physical activity as a high priority increases discussion and policy solutions to health issues (MacDougall, Wright & Atkinson, 2002).

Further, a review of studies that included policy interventions for adults concluded that physical activity policies that may promote healthy lifestyles included prompts to increase stair use (n=5), access to places and opportunities for physical activity (n=6), and comprehensive

work-site approaches, i.e. employee/peer support for physical activity, incentives, access to exercise facilities (n=5) (Matson-Koffman, Brownstein, Neiner, & Greaney, 2005). While policies directed toward physical activity occur on the international, national, and local levels, information on built environment policies and how they influence physical activity of rural residents could not be found. Further comprehensive research on current policies that relate to both physical activity and rural built environments warrants attention.

RESEARCH METHODS

This multiple, description, explanatory case study design (Gangeness & Yurkovich, 2006) included a comprehensive, multiple-method approach which provided a larger view of the communities. In this study two independent rural communities were chosen based on their locations and populations. Both communities had a population of less than 1,000 and did not have a community of more than 2,500 people within a 15-mile radius. The defined parameters for these communities addressed the gap in the literature, in which the published studies tended to have varying rural populations of greater than 2,500 within their samples.

These methods included women's focus groups (4 groups, n = 26), city council focus groups (2 groups, n = 8), city administrator/clerk interviews (n=2), women's verification individual interviews (n=2), individuals referred to the researcher as individuals with perceived power (n=7), analysis of documents (3 years/community), and use of the *Sidewalk Maintenance Tool*. There were two women's focus groups in each community, one with women ages 18-50, and the second with women 51 and over. These grouping were set to delineate possible child-bearing/rearing and non-child bearing/rearing years. This case study was guided by an ecologic model (biologic, physical, socio-cultural, and politico-economic components) and grounded in critical-feminist theory (Anderson & McFarlane, 2004; Campbell & Bunting, 1999). Approval was obtained from a university IRB and each city council prior to data collection. Informed consent was obtained from all focus group and individual interview participants.

The study was bounded by rural women's perceptions of women's utilization of built environments to achieve physical activity; the availability, acceptability, and accessibility of built environments (e.g. trails, sidewalks, community centers); the local government's decisions and policy making focused on built environments; and the roles power and limited resources have on influencing the local government's decisions.

DATA COLLECTION

The women's focus groups, city council focus groups, and individual interviews were central data sources while the other data sources (sidewalk maintenance assessment, archival data, meeting minutes, and policies) were used to augment and triangulate study findings. This triangulation added depth and breadth to the data analysis, and strengthened the interpretation and credibility of findings. The data sources, collection, and interview guides were built and considered by reviewing an ecologic model (biologic, physical, socio-cultural, and politico-economic components), ensuring all areas of the community were evaluated. When the individual interviews were completed it was determined that additional individual interviews would only need to be conducted with the key women informants from the women's focus groups. There was repetition of data (among focus groups, city council focus groups, city administrator/clerks), and no further need to establish credibility of understanding.

DATA ANALYSIS

All interview and archival data sources of data were analyzed according to recommended qualitative data content analysis methods that coincide with qualitative case study analysis (Boyatzis, 1998; Miles & Huberman, 1994; Yin, 2003). A process was established and used for all data sources/files for analysis of qualitative data, NVivo7 (SdG Associates, 2006) was employed for data/file organization. Each data source was first analyzed independently. A description and summary of each data source included identification and placement into categories or general themes. After each data source was independently analyzed, a matrix of categories was developed to evaluate the support or challenge of each case study proposition. The analysis steps were performed separately for all of the data sources from the two communities. These separate analyses provided separate case descriptions for cross case analysis. The researcher identified themes, patterns, and differences across all data sources.

FINDINGS

There were 26 total participating women in the focus groups (see table 1). Women participants perceived community economic resources as an influencing factor for availability, development, and maintenance of rural built environments conducive to physical activity. These women participants also identified women speaking out and 'being heard' as influencing availability and maintenance of built environments, and advancing age with reduced physical ability influenced the maintenance of resident-owned rural built environments. The findings are reported under Economic Resources, Speaking Out and Being Heard Influences Availability, Advancing Age and Physical Ability Influences Maintenance, and a summary with Assertions Based on Study Findings.

Table 1
Participating Women and Their Ages

	Community A			Community B		
Group Type	Number	Average Age	Age Range	Number	Average Age	Age Range
18-50	8	38	26-50	6	40	33-49
51 and over	6	65	*50-77	6	63	51-78
Total	14			12		

* One woman age 50 signed up and participated in the 51 and over group by mistake

Economic Resources

Economic resources were perceived as influencing the availability, development, and maintenance of rural built environments by women participants. One woman found the lack of funding impacted the availability, development, and maintenance of built environments used for physical activity. "Doesn't is always come down to money?" Another woman supported the need for additional economic resources in her community by stating, "I think that it's just a small community and there are limits. The resources are limited." Economic resources findings and how they influence the availability and development are reported first followed by maintenance findings.

Availability and Development

Women participants in the focus groups perceived economic resources as influencing availability and development of built environments for physical activity. One woman stated, "Funding is always the #1 issue in a small community." When economic resources were available to the communities, opportunities for physical activity were expanded (e.g. fitness centers), however, when resources were limited, this need of the community were not realized, because it was not the top priority. For example, the communities were not able to financially support day care at fitness center, which was a barrier for child rearing women. The women identified ways to increase availability through development of built environments and found that limited economic resources restricted the opportunities to meet all of the population needs. A Blue Cross Blue Shield (BCBS) grant funded a developing built environment (fitness center) that opened during data collection in community A. The combination of funding from the BCBS grant obtained by the city, collaboration with the public school (building), city council, and grassroots community support all created an economic package that made it possible to develop the fitness center in the community. The community education director summed up the development process of the fitness center.

> I believe it was a [tobacco] settlement to Blue Cross/Blue Shield…They [BCBS] had this lump sum of money and … people have wanted to add on to our weight room and make it more accessible for women because the weights we have in there right now are for football players and things like that. So when they got this money, there was a group that did go…gung ho. They found a room and they formed this little committee for the equipment. There are still a lot of things to be worked out right now, but for this town, it's perfect, it really is. It's a start.

One city councilor confirmed that funding for the fitness center idea "was offered by BCBS as a grant" which made it possible for this small community to develop their fitness center.

The women focus group (18-50) participants identified the economic need for child care in the developing fitness center to expand availability. One woman in the group explored with other group participants "How big would that have to be? What would you think? I mean I'm just trying to think of the room that it's [fitness center] going to be in and I wonder if that's not a possibility." After the focus group, four of the eight women went to the developing fitness center room and explored the possibilities of an on-sight child care area. In a follow-up interview (5 months after the women's focus group) one of these women shared that a day care was not within their budget and stated that they "can't really hire a babysitter."

Focus groups in both communities discussed how Community Education was part of the public school system and that most activities were organized and funded by Community Education. As one city councilor stated "you're right, community ed is probably the key because [of] funding." Community education funding included supporting a person to organize physical activity events, using the public school building and grounds, and paying instructors to lead group fitness activities. One community education coordinator confirmed her role in planning physical activities for residents:

> I'm the community ed coordinator so I coordinate evening classes, afternoon, and things like that, and you know in a town this size it is so rural…up until our

> fitness center opened a couple months ago these little after school classes were about the only thing that [we had]… We have a weight room in the high school… we have had step aerobics…We offer indoor walking in the school and that actually gets a pretty good turn out in the mornings and the evenings, and things.

Community education held a central role in physical activity planning and opening the public school facility and grounds to rural women. Overall, women participants perceived economic resources like "huge grant" funding, and collaborations with the community education (public school) as being a positive contributor to the availability and development of built environments for physical activity.

Maintenance

Economic resources limited the maintenance of rural built environments conducive to women's physical activity. One woman (focus group, 18-50) commented on cleaning the weight room in the public school prior to using the space due to the economic status of the public school.

> I think it's just one more thing that the janitors in our public school system have to do and not that they get any more [pay] for it, I'm sure. It's just another added responsibility, so I'm very sensitive to that and all of us that use the weight room in the morning and that's probably why we vacuum it. They let us in there and are very generous with that…

Another woman in the group commented further about economic resources and maintenance "you're talking about [the] whole maintenance issue that the funds are just not even available, or an organization hasn't made that their pet project." Sidewalks were also impacted by limited resources and to some degree streets and roads were influenced by the funding restrictions. The women in both communities recognized that the availability of economic resources could negatively influence the maintenance of built environments that they used for physical activity.

Speaking Out and Being Heard Influences Availability

The rural women participants in this study reported that they spoke out about the development of built environments and felt they were heard by individuals in formal power positions. "It's basically one of those [things] if you want to do it or see it get done - Do it yourself!" Furthermore, a woman proclaimed about addressing and sharing development ideas with the City Council "It's not something they're going to come up with on their own. You have to make your voice heard and let them know." This woman did feel heard by the City Council and identified the need to speak up when needed. When addressing the need to meet with the City Council or public school board one woman found "I have never felt…it [the City Council] was a closed atmosphere," she perceived it as an open environment. The women participants found that they could be heard by the city council or public school board regarding the development of built environments and indicated that this option for addressing concerns about availability and development of built environments worked for them.

Advancing Age and Physical Ability Influences Maintenance

A topic that was discussed by a women's focus group (51-over) participant was age and physical ability. This woman found that age and physical ability influenced the ability of individuals to maintain sidewalks in front of their homes. She stated, "There are lots of elderly people in town… we just can't shovel anymore" due to their physical ability and advancing age. Although not mentioned in all of the groups, advancing age and physical ability were paramount to this participant. It should also be noted that advancing age and physical ability were not explicitly discussed in the interview questions.

DISCUSSION

Rural women perceived limited economic resources; speaking out and 'being heard'; being empowered by those in formal power positions; advancing age; and physical ability as influencing the availability, development, and maintenance of rural built environments. The perceptions of the rural participants are represented by aspects of the ecologic model. Limited economic resources influences the decision making process of the politico-economic component of the ecologic model. Limited economic resources hamper the supportive interaction which assists with actualization from the politico-economic component to other components. Findings related to speaking out and 'being heard' by those in formal power positions, and being empowered by speaking out are recognized in the socio-cultural and politico-economic components of the ecologic model. The rural women's perceptions of being empowered had both social and political ramifications. The women who felt they could access individuals in formal power positions were empowered by this perception and identified changes that they influenced in their communities. This may be unique to rural communities, as the small number of community members enables relationships to already be in place for most of the population with policy makers. Furthermore the advancing age and physical ability of rural women resides within the biological component of the ecologic model. Further discussion follows the structure of the findings.

Economic Resources

Women participants in this study perceived limited economic resources as restricting availability, development, and maintenance of rural built environments conducive to physical activity. They perceived grant writing and collaboration with the public school, city council, and city administrator/clerks as the mechanisms for the acquisition of resources to develop and maintain their built environments used for physical activity. However, rural communities (cities with 1,000 or fewer population) have limited financial resources even with collaboration; they have limited tax base, and limited resources for writing grants. As an example of costs related to built environments, Wang et al., (2004) analyzed the 2002 costs of bike and pedestrian trails in Nebraska and found the cost varied from $5,735 (crushed lime-stone) to $54,017 (concrete with 3 bridges) per mile. Compounding the development burden of built environments are the costs to maintain them which Wang et al., (2004) estimated at $4,400 to $5,692 per mile depending on type. These are profound budgetary considerations in rural communities where residents are receiving limited incomes (e.g., elderly). The notion of lower socioeconomic status corresponding with less built environments for physical activity is supported in the literature

(Gordon-Larsen, Nelson, Page, & Popkins, 2006). They further connect the limitations in number of facilities for physical activity and limited socioeconomic status to obesity patterns (Gordon-Larsen et al., 2006). Therefore it can be asserted that limited economic resources negatively affect the existence, number, and maintenance of built environments used for physical activity in these two rural communities.

Empowered Women

This case study sought to decrease isolation and limited power of rural women by giving them voice through focus group interviews and by seeking to understand their perceptions of what influences the development of built environments for physical activity, thus, supporting the feminist underpinnings. The findings revealed that rural women participants spoke out in their communities and were 'heard' by those in positions of formal power which resulted in them feeling empowered to make changes in their communities (e.g. PTA, safety, addressing day-care needs).

The perceptions of empowerment from the women in this study were not as well explored as other rural women population studies (Leipert & Reutter, 2005a, , 2005b) as empowerment was not the primary focus. Researchers focusing on rural women, gender, and geography, Leipert and Reutter (2005b), found that the rural context, which included "isolation, limited options, limited power and being silenced" contributed to the women's marginalization . Their vulnerability to health risks were addressed by the women through resilience. Leipert (2006) further states that "taking a positive attitude" was part of being hardy and self-reliant .

The conclusion that rural women were empowered could be associated with the many examples of adapting their physical activity to the available built environments. The women identified and enacted solutions to most of the concerns in their environment. While an outsider may view built environments as lacking in amount and diversity, those within the environment viewed each built environment as an opportunity and identified options to adapt their behavior. Spiers (2000) supports this notion and states:

> Emic perceptions of vulnerability are experiential and qualitative, while etic perceptions involve identification of individuals or groups who are at particular risk according to normative standards derived from the general population.

Those from an outside perspective (etic) may fail to recognize the adaptations taking place and the perceptions of empowerment held by those in the community (emic) who are able to adapt. Therefore, it is asserted that empowerment of rural women in these communities was derived from the perceived built environment opportunities, influential roles, women's abilities to adapt their physical activity to available built environments, and their insider status in the rural community.

Maintenance of Environment

Women identified that their advancing age and physical ability impacted the maintenance of their own property (e.g. sidewalks in front of their homes). Homeowner maintenance of sidewalks and its affect on physical activity of community members is not discussed in the healthcare literature. However, Swenson, Marshall, Mikulich-Gilbertson, Baxter, and

Morgenstern (2005) studied age-related physical activity of Hispanic and non-Hispanic white rural adults ages 55-80 and found that activity decreased with age. The activities most frequently identified by Swenson, et al., (2005) were walking and home maintenance/gardening. Walking levels stayed stable for non-Hispanic white women until they turned 63 when their activity decreased (Swenson et al., 2005). This decrease in activity identified by Swenson et.al., (2005) could be associated with the advancing age and reduced status of physical ability identified by study participants resulting in poorly maintained city sidewalks on their home property.

Therefore it can be asserted that rural women who are advancing in age and have reduced physical abilities may impact the maintenance of the sidewalks in front of their homes and negatively influence the activity level of the entire community. Furthermore, the local policy makers could address the community needs related to their aging populations by adopting a maintenance plan for sidewalks throughout their community.

Summary of Case Study Assertions

Assertions are the summary of the findings based on the researcher reviewing all data sources and identifying the key messages. Assertions are unique to case study design. The assertions in this study were identified in the following three bulleted items.

- Limited economic resources negatively affect the existence, number, and maintenance of built environments used for physical activity in these two rural communities.
- Empowerment of rural women in these communities was derived from their speaking out and being heard in the development of built environments, having a positive attitude, and adapting to available built environments.
- Rural women who are advancing in age and have restricted physical abilities may not be able to maintain the sidewalks in front of their homes which could negatively influence the activity levels of the entire community.

Policy Implications

Ashe et al., (2007) specifically identified five legal and policy strategies for healthy environments related to physical activity and healthy food options. Four of the five recommendations were associated with findings from this case study. These focused on policy and financial support for school environments, built environments, community facilities, and earmarking taxes and fees as a way to finance these needed community built environments. Future policy considerations for rural communities and nurses serving these communities are listed below. These are based on findings from this case study research and evolved from the assertions.

- Local policy makers and nurse advocates need to address their aging population's limitations for doing physical activity by adopting a maintenance plan for sidewalks and other built environments for physical activities throughout their community.
- Local officials need to become politically active in advocating for state and federal policies which increase the economic resources available for rural

communities regarding physical activity infrastructure (e.g., sidewalks, trails) since it is known that physical inactivity causes an increase in both morbidity and mortality.

- Nurses advocating for rural populations need to consider the built environment as a factor in health promotion and treatment (diabetes, obesity) as they address health policy issues and resource distribution at the local, state, and federal levels.

Rural Nursing Practice Implications

Public health nursing is best suited to address the rural environmental issues that consumers of healthcare face. Therefore expanding community health nursing to include considerations of built environments used for physical activity by community members of all ages by conducting needs assessments with this focus of health promotion and prevention are paramount (Hays, Davis, & Miranda, 2006). A more comprehensive look at the environments where individuals reside will create information to inform the development of health care policy which will facilitate realistic physical activity recommendations.

CONCLUSIONS

Women participants perceived community economic resources as an influencing factor for availability, development, and maintenance of rural built environments conducive to physical activity. Other than economic resources, women speaking out and 'being heard' influenced availability and maintenance of built environments, and advancing age with reduced physical ability influenced the maintenance of resident-owned rural built environments. The economic resources needed by the community were identified by participants. They found that grant writing and collaboration with the public school and city officials were avenues for accessing resources for the development and maintenance of environments used for physical activity. Policy work for rural communities should address the physical limitations of aging populations and how home maintenance (clearing and cleaning) can impact the built environments of entire communities. Health policy work of local nurses advocating for rural populations should consider the built environment as a factor in health promotion and treatment (diabetes, obesity). Furthermore, community health nurses need to be involved with evaluating rural built environments to help inform those prescribing physical activity, so that reasonable recommendations made to clients of healthcare.

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