Rural Provider Retention in Northeastern Oregon: A Case Management Based Approach

Doctor of Nursing Practice Project Proposal

Lacey Kay Wilson, DNP Student, Project Facilitator

Oregon Health and Science University

May 23, 2016

Rural Provider Retention in Northeastern Oregon: A Case Management Based Approach The doctoral project of the student author is titled "Rural Provider Retention in North Eastern Oregon: A Case Management Approach." Healthy outcomes for all rural populations are worse than for urban per the National Advisory Committee on Rural Health and Human Services (NACHHRS) in 2008. This is just one of many statistics illustrating rural health disparities. The clinical problem focus of this doctoral project is on the higher provider turnover found in rural areas and will focus on provider retention as a solution. Difficulties with provider recruitment and retention have an impact on rural health care, and more so than urban (Fisher, Pearce, Statz, & Wood, 2003). Rural providers often deal with unique challenges that impact their practice and lifestyle decisions (Chipp, Dewane, Brems, Johnson, Warner, & Roberts, 2011). Loss of even one provider can have significantly detrimental effects on access to care (NACRHHS, 2008; Renner, Westfall, Wilroy, & Ginde, 2010). When a population is served by only one or two providers the loss of any provider is significantly more of an impact on the community. Rural communities vary greatly in population, geography, economics, and culture (Winters, 2013). A description of the targeted rural community follows so a better idea of the potential impact is appreciable.

Generally speaking rural populations live in areas of open countryside that may include urban development hubs of up to 50,000 people (USDA 2013). Rural areas are not all economically and demographically the same and vary in their "ruralness" (Fordyce, Chen, Doescher, and Hart, 2013). This project is specific to Union County in the northeastern corner of Oregon. Union County contains only one hospital that is designated a critical access facility. The economy is largely based on agriculture, livestock, and timber (in that order). The geography includes a large, circular valley (Grande Ronde Valley) and is surrounded by timbered

mountains. The typical elevation is 2,000 feet on the valley floor and 4,000-7,000 feet in the mountains. Transportation is complicated by all roadways traveling through mountain passes with four season weather patterns. The four seasons weather pattern complicates air transportation as well. The largest organized cluster of Union County is the town of La Grande and holds a population of 13,000. Union County has 6 towns with their own zip code, three of those (Union, Elgin, and La Grande) have medical facilities.

The Oregon Office of Rural Health provided the following statistics regarding the epidemiology of Union County. The eastern half is a medically underserved and Oregon Governor certified shortage area. The whole county is a designated health professional shortage area for low income populations. Only 15-30% of the need for primary care visits are met in the cities of Union and Elgin. To restate this problem for clarity as to the significance of the issue, this means that 70-85% of the needs for primary care visits are not met in those cities. The urban hub of Union County, the city of La Grande, does not have this dismal rate but is still below the state average for percentage of primary care needs met. The second highest rate of preventable hospitalizations in the state is held by the city of Elgin in northern Union County. Union and La Grande are also above the state average for preventable hospitalizations. Average travel time to the nearest hospital is considered extended for the community of Elgin at 27 minutes. Elgin also has above average mortality when compared with statewide statistics. With the population's characteristics and statistics identified we can state an applicable project purpose.

The project's purpose is to identify what has affected provider turnover over the last 15 years in comparison to urban practitioners and to identify how the current rates of retention could be improved. Then, the project proposes to conduct a quality improvement project in Union County implementing interventions based on what has been found to affect rural provider

turnover. Research encompasses the first part of the project purpose and application of the research is the second component.

For the research component a review of the literature was conducted. Several important points are available such as candidate attributes and background, community setting, and the use of technology affect retention. In regards to candidate qualities and needs recruiting with the retention as an end goal is more successful if the candidate is carefully fitted to the community before hire (Health Information Workforce Center [HIWC] 2013; Helseth, 2012). Potential candidates should be acquainted with the community and its nuances before moving in (Chipp, et al., 2011). Part of a beneficial case management program assesses the provider's fit with the community and medical practice of interest before placement (MacIsaac, Snowdon, Thompson, & Wilde, 2000). Fisher et al. 2003 found that a clear understanding of the provider's role needs to be communicated ahead of time to the incoming provider. Felix, Shepherd, and Stuart (2003) report that it is important that the recruiter understands the community well if the plan is for long-term retention. A recruiter with a well rounded knowledge of the community's nuances and specifics can focus on the candidates that best fit their community's needs. In addition, candidate attributes can be capitalized on, such as previous rural training.

Research does support rural provider training as a means to increase the quantity of both new and long term providers. Rural training programs can be utilized to improve retention per Daniels, Vanleit, Skipper, Sanders, & Rhyne (2007), Felix et al., (2003), Goodwin & Tobler (2013), Halaas, Zink, Finstad, Bolin, & Center (2008), and Hemphill, Dunn, Barich, & Infante (2007). Graduates of a rural medical education program are highly likely to relocate into rural areas and stay within the same locale and practice for at least 3 years (Glasser, Hunsaker, Sweet, MacDowell, & Meurer, 2008; Hemphill et al., 2007). A provider's intentions to move may be at

the same rate whether or not the provided received rural training (Chauban, Jong, & Buske, 2010). To further explain that: providers who come to a rural area may initiate practice with preconceived intentions to move in the near future or stay long term in the community. This is not affected by their previous rural medical training experiences. These facts can lead to the conclusion that rural medical awareness and education can be useful for increasing the numbers and retention of rural providers yet providers may or may not possess a mindset of retention. Further data is needed to produce consistent trends and other interventions are important for retention in addition to rural medical training.

Other specific interventions found that improve provider retention include supportive programs in and outside of the workplace environment. An intervention of case management or a similar support program during the hiring process and initial weeks after placement of the new rural providers is of benefit and desired by new rural practitioners (Felix et al., 2003; Hemphill et al., 2007; MacIsaac et al., 2000). This case management support helps with integration into the medical practice and community. Support programs can help retain providers by addressing problems (Chipp et al., 2011; Fisher et al., 2003; Hemphill et al., 2007; Renner et al., 2010). Teamwork within the workplace also boosts retention (Fisher et al., 2003; Glasser et al., 2006; Hemphill at all 2007). These studies identify that positive teamwork improves retention; in turn the findings of MacIsaac et al. (2000) and Hemphill et al. (2007) confirm friction among staff and administration increases turnover. Addressing provider concerns and conflict issues, promoting teamwork, and offering a liaison to the community can ward off problems and foster an embracing of the rural practice setting.

A liason to the community is valuable because the community is also a source of solutions for rural provider retention. Fisher et al. (2003) found that health care providers

recruited from within the indigenous population have better retention rates. Recruiting students from a rural area resulted in more entry into healthcare education and subsequent rural placement (Goodwin & Tobler, 2013). Community involvement in the recruiting process can help to develop individualized working solutions to recruitment and retention problems (Felix et al., 2003). Hometown and the size of the home community does affect practice site choice of potential rural providers (Daniels et al., 2011; Felix et al., 2003). One background attribute of candidates not found to be associated with rural provider retention is the location of the candidate's high school; Renner et al. (2010) found that high school location does not affect practice site choice. That data can be applied when looking for the potential of a long-term relationship with the rural community. High school location is not a good indicator of potential for long term commitment and should not be a significant factor when assessing intentions to remain in the community. The recruiter though can be encouraged by the fact that high school is only part of an applicant's background and all the connections to rural life previously discussed and supported by the data such as hometown size can be considered.

The literature also demonstrates that providers in rural areas seek a balance between their quantity of work hours while maintaining skills and being able to access professional development. By meeting the needs of the providers satisfaction is improved and this in turn improves retention. Higher rates of depression and burnout are found among rural practitioners (Chipp et al., 2007; Felix et al., 2003). Some rural providers reported concern with maintaining their current skill set while also experiencing increased after hours pressures (Chauban et al., 2010; Felix et al., 2003; Fisher et al., 2003; MacIsaac et al., 2000). Providing adequate backup and locum tenens might encourage providers to stay who intended to leave (Chauban et al., 2000; Felix et al., 2003). Rural providers sought more professional opportunities in the studies

by Daniels et al. (2011) and Fisher et al. (2003) but thought that academic/research opportunities were less important in their decision to move /change practices (Chauban et al., 2010). Accessing continuing education is important to rural providers (Felix et al., 2003; Goodwin & Tobler 2003; Hemphill et al. 2007). Individual factors of the practice affect retention too. Identifying these factors as values in a competitive market could improve retention (Chauban et al., 2010; Hemphill et al., 2007). A proactive recruiter should consider improving the professional aspects of the practice such as continuing education opportunities and maintaining skill sets. The interface between the workplace and the provider's personal life is of importance as well when pursuing retention as the workplace hours and stressors subsequently affect personal life.

Indeed, outside life such as the community, the provider's family (specifically spouse and children), and appreciation of the rural lifestyle all pertain to provider satisfaction and retention. Part of the rural lifestyle is a provider loss of anonymity per Winters (2013). This loss of anonymity can empower as well as frighten (Winters, 2013). Providers may be empowered by personally knowing their patients yet the emotional connection beyond the professional relationship can also be frightening. Chauban et al. (2010) identifies that it is important for providers to feel as if they belong and are appreciated in the community. A poor family environment compiled from several pieces of literature is defined as a lack of cultural activities, the loss of anonymity (described as living in a fish bowl), family adjustment to the area, inadequate housing, distance from family/support system, lack of spousal employment, and lack of educational opportunities for the provider's children. These are all problematic for retention (Chauban et al., 2010; Felix et al., 2003; Fisher et al., 2003; Hemphill et al., 2007; MacIsaac et al., 2000). The desirability of the rural location and the lifestyle it offers affects provider satisfaction (Daniels et al., 2011; Chauban et al., 2010; Fisher et al., 2003). Issues within the

community such as safety should be addressed as a part of recruitment and retention strategies (Felix et al., 2003). In essence: to successfully retain a rural provider the provider and truly the whole family needs to be accepting of the relative reduction of privacy that accompanies rural practice. The family should also be amiable to the area's available activities, weather, cultural and physical geography, employment and educational opportunities, and proximity to their support system (or be able and willing to develop a new support system). Technology is one way providers and their families can keep connected to their support systems.

Technology is useful for boosting rural provider retention because it can also alleviate workplace isolation. Per the HIWC (2013) telehealth can be a means of improving rural health access to care and provides implications for policy planning and funding. Telehealth ties into the professional support system for providers by increasing communication and collaboration (Goodwin & Tobler, 2013). Chauban et al. (2010) supports this use of telehealth by stating that technology should be optimized to provide professional backup and links to specialists. Felix et al. (2003) states that consultation availability is desired by providers struggling with isolation in rural areas. These findings are further supported by Fisher et al. (2003) which summarizes the use of technology well by saying that telehealth is a way to offer isolated providers better support and increase their satisfaction.

It cannot be denied that there are financial considerations to retaining rural providers. Incentive programs and reimbursements have proven important to retention efforts. Fifty five percent of providers stayed at their initial placement site after fulfilling their loan repayment obligation in one Colorado study (Renner et al., 2010). This data justifies offering loan repayment in exchange for service as a means of retention. In the same study data is trending toward loan repayment being better for retention then for recruitment. A West Virginia study

claims an 80% retention rate after service obligation completion of scholarship and loan forgiveness program (Wheeler, Endres, Pauley, Mahone, & Melton, 2013). Daniels et al. (2011), Felix et al. (2003), and Fisher et al. (2003) report that financial incentives, existing financial aid obligations, and income potential all were found to be important considerations to providers seeking rural employment. When there is poor reimbursement as there is in serving mostly a low income population it is more difficult to retain providers (Felix et al., 2003). Overall financial benefits are not the only factor but certainly do impact a provider's decisions and commitment. It also impacts their ability to stay in the area and therefore becomes a retention related issue. Financial benefits and incentives are frequently a result of policy issues, discussed next along with ethical, equity, and economic issues.

Policy, ethical, equity, and economic issues exist that are dynamic on rural provider retention. An ethical nursing theory developed by Long and Weinert (2003) states that care of rural populations needs to be culturally appropriate in specific ways. Turnover is higher in rural areas (NACRHHS, 2008; Renner et al., 2010). The next consequence of this turnover is a cultural conflict as the incoming providers are challenged to overcome the stigmas of turnover. The incoming provider struggles to mend problems attributed to previous providers (Chipp et al., 2008) and the distrust hindered the provider's ability to achieve therapeutic relationships with patients. Chipp et al. (2008) reports mutual support between the provider and the community can reduce rural health disparities and advance rural care. Much of that mutual support is based on an ongoing, trusting relationship (Winters, 2013).

Higher turnover rates and the resulting shortage of providers can also negatively impact the equity of rural health care because the loss of even one provider can have significantly detrimental effects on access to care (NACRHHS, 2008; Renner et al., 2010). For example, a

loss of one of two total regional primary care providers is equivalent to a 50% decrease in primary care availability for that region. This creates major inequities in care delivery when compared to urban environments that better integrate such loss due to the larger volumes of urban providers. The rural economies of the United States provide strengths to urban economies (Bolin et al., 2015). Rural needs should be prioritized accordingly and the research implemented to provide equitable care. It might also be said that only certain rural people are able to afford the same access to care and provide stability as their urban peers. It would take a larger income for a rural resident to be able to obtain the same care that might be possible for someone in an urban population with less income. A larger income proportionately is needed because of a rural resident's increased travel and other expenses to access that same care. For example, an urban resident may be able to ride low cost transportation to their specialist appointment, but a rural resident may drive some hours, incur lodging costs, and lose wages to reach that specialist. Again, this creates an inequity as fewer rural residents can afford such expenses out of pocket. One solution has been legislation to develop more equitable care.

Policies affect rural health care coverage in several ways through increased funding of programs that promote access to care. Goodwin and Tobler (2013) elaborate on this by describing that primary care options are promoted in rural areas through funding of health centers and health clinics, including salaries and retention efforts. Hemphill et al. (2007) and Kauffman, Konrad, Dann, and Koch (2004) relay unquestionably that funding and policies are affected by retention data. An example is when funding for the National Health Service Corps (NHSC) scholarship program was reduced due to findings the program resulted in notoriously short retention rates. Better retention might lead to increased funding for the NHSC or similar rural health care programs designed to alleviate disparities.

Even if there was no shortage of providers in rural areas, recruitment to replace providers is expensive and time consuming for healthcare systems (Fisher et al., 2003). It is notable that no literature described high turnover as beneficial though one might hypothesize that a variety or turnover of providers would bring in fresh ideas and information. In the long term efforts for ethical and equitable care it is not feasible to achieve totally equal and culturally perfect care for rural populations. The factors of geography, financial considerations, cultural aspects, and weather prevent completely equivalent care. However, by giving some attention to the issues around rural health and provider turnover a significant population of the US will more equitably share the outcomes enjoyed by urban populations.

There are some further research opportunities and literature yet to be developed. Gaps identified in the literature appear to be retention rates past the first few years of practice; the literature only reported time frames of around three to five years. Culturally sensitive care includes provider stability (Long & Weinert, 2013). However, policies and programs are currently established that encourage practitioners to come but do not retain those providers past the initial three to five years. This is inferred after the literature review was found to be absent of any program or intervention regarding retention past 5 years. We can also know that there is data yet to be because the literature of Fisher et al. (2003), Goodwin and Tobler (2013), and Hemphill et al. (2007) specifically states there is a need for further research on the topic of provider retention.

Inconsistencies were few but present in the literature. One study inquired into a provider's concern for lack of work (Daniels et al., 2011) while most other literature frequently mentioned increased demands on rural versus urban providers (Chauban et al., 2010; Fisher et al., 2003; MacIsaac, 2000). Another variation in findings is in what pre-college background attributes are

related to better provider retention. Being a native of the population improved retention (Fisher et al., 2003). High school location did not affect retention (Renner et al., 2010). Native community size was predicted a future practice site choice (Felix et al., 2003). The literature reviewed did not present unified findings on one rural connection to provider retention. Even with these differences there is a theme that rural connections do improve rural provider retention.

Moving on from the research we can now discuss project actions on rural provider retention. There are two major components: case management and community involvement.

Case management will incorporate meeting the needs of the newly hired for providers through regular interactions in person and through technology communications. Community involvement will be sharing the research that has been found to help the community retain providers, then working with the community to implement evidenced based and community specific solutions.

The community setting of the project is Union County, Oregon, described previously. Participants in the project are intended to be primary care providers within the hospitals and clinics of Union County. Providers new to the area will be offered the most targeted interventions and support because long term retention is what is to be accomplished. Seasoned Union County providers with a proven retention record are also invited in order to foster interprofessional collaboration and connections. The interactions via face to face and technology communications will have the objective of supporting the newest rural providers, and experienced long term providers will also be invited to participate as a part of the support system offered to these new providers. Specific actions of the case management process are to evaluate if the provider is a good fit for the community during the pre-hire process (HIWC, 2013; Helseth, 2012; MacIsaac et al., 2000). The project facilitator can coach a willing recruiter in looking for a rural background or indigenous applicant and researching the candidate's rural connections as an

evidence based intervention improving retention. The recruiter should also assess if the provider had rural training and what service obligation the provider may be holding. When the appropriate candidate is identified the recruiter should acquaint the provider with the practice, the provider's role, and the community setting before higher (Chipp et al., 2011; Fisher et al., 2003). Then, regular interaction should continue through the initial weeks of practice. This is the step in which the project will be initiated because the project facilitator's first opportunity for interaction is in the immediate post hire phase. For the project the interactions will be routine face to face meetings as well as email and phone contact between the project facilitator and the participating providers. The project facilitator should answer the questions of the provider, share community information, identify practice concerns and ways to improve teamwork, and connect the provider to resources and solutions. The project facilitator will generally encourage providers to use the project facilitator in a similar manner as they would a case manager; ideally, as a resource for integration into the medical practice and the community at large. One study that will be a model for the interactions used bi-weekly face to face meetings at first then phased out by using longer intervals as time went on (MacIsaac et al., 2000). In the time span provided the project will be using weekly interactions, gradually increase to bi-weekly, then monthly. The technology communications will include email and phone contact. Since the project facilitator is indigenous to the community and also a provider it is foreseen that support will continue informally even after the official completion of the project.

The second part of the project is to involve the community. Ways to do this include meeting with the leaders of the medical microsystems to share ideas and plan solutions. Target improvements include community environment and development such as building school programs and increasing community safety. To achieve those goals, it should first be identified

what is currently available in the community for clinical opportunities, practice involvement, and local recruitment. The project facilitator can share the data supporting these and the other interventions found to impact retention. The project facilitator will encourage the support of technology as a venue for increased provider satisfaction since technology is found to be helpful per the literature review. A second community action may be to develop high school programs that educate about healthcare careers. Yet another is scholarships for students likely to return to practice in their hometown rural area.

Barriers and facilitators that are anticipated for the project include a readiness to change, current state of the hiring process, and the organization's and community's willingness to participate in the project. So far the project facilitator has not experienced objections to the proposed project through a pre assessment with the county's largest microsystem (the hospital based organization of Grande Ronde Hospital). There has been a lack of effort to be active in the project with the facilitator due to perceived time constraints by the administration. It is unclear at this time the actual participation of the community, providers, and recruiters but interest and participation is expected. The project actions may shift somewhat based on interest as the project will not be applied to uninterested participants.

Effectiveness of the project will be measured in the following ways. Surveys with background information will be collected on participants. Post intervention surveys will be collected. Retention rates would be easily measured over one, five, and ten years because of the small setting, small sample, and simplicity of measurement (either the provider is still practicing in the county or is not). For purposes of this doctoral project the data will be specific to changes that can be measured over the duration provided by the project time frame. Different areas of the project's effectiveness will be assessed such as asking how helpful the project was as a new rural

provider in Union County. There will be some numbered scale questions in addition to the openended questions to gather the qualitative data. Quantitative data will be gathered of years of practice experience, rural training, rural service obligations, among further data. Technology will be used to quantify the data for measures such as statistical significance.

Implementation of the project involved first contacting the providers with hard copy surveys and preaddressed, stamped envelopes. Of the 25 surveys sent to the primary care providers of Union County, five were returned. Two providers expressed interest in participating in the project, while 3 others listed their interest level as unable to be involved but interested in receiving communications from the group. The project facilitator met with the providers at a convenient time and location on 3 occasions (over lunch break at the clinic). Topics discussed at these visits included challenges Union County providers face and the development of a resource list for new providers. The project facilitator was also invited to sit in on an informal luncheon meet and greet with a candidate for a physician position, allowing for first hand observation of the hiring process.

Outcomes in relation to the literature are yet to be measured. Due to the time constraints of the project, implementation was carried out over just a few weeks, not allowing for measurement of data over the time frames identified in the literature. The two providers that participated verbalized how the resource list developed could help incoming providers and how the project actions in general would be supportive and beneficial for very new providers. Both the involved providers have been practicing in Union County for 2-3 years.

Practice implications for the project would be to coordinate the timing of the intervention with the initial few months of practice as that would be when the new provider would need the most support. As iterated in the literature and in the experience of the participants, pre hire case

management is also crucial to the process for developing long term providers. Employers and community resources could consider how to implement these interventions within their specific systems. The project facilitator is not limited to being a resource just during the project and has made herself available to individuals and organizations past the official culmination of the project to share research and help identify provider retention solutions.

This doctoral project is the vested interest of the student author and project facilitator, who is a native of Union County and has experienced along with her loved ones and community issues with rural disparities. Retention improvement is the objective due to some very specific situations, demonstrated with community member's unprompted comments. "I wish someone (referring to a primary care provider) would come and stay at the clinic here." And, "No doctor here is taking new patients." Or, the patient can't establish care with a provider for months even with a serious medical issue because that is the time frame for the next available appointment. It has not been a general opinion that seeing different providers often is desired. Rural communities do accept some unavoidable complexity to their health care like distance, but should not have disparities when it comes to the most basic of health care services: having prompt access to a trusted provider at a primary care home. By improving provider retention it is expected that primary care access issues will be alleviated and the rural population of Union County will have more consistent, accessible healthcare.

References

- Chauban, T. S., Jong, M., & Buske, L. (2010). Recruitment trumps retention: Results of the 2008/09 CMA rural practice survey. *Canadian Journal of Rural Medicine*, 15(3), 101-107.
- Chipp, C., Dewane, S., Brems, C., Johnson, M. E., Warner, T. D., & Roberts, L. W. (2011). 'If only someone had told me ...': Lessons from rural providers. *Journal of Rural Health*, 27(1), 122-130. doi:10.1111/j.1748-0361.2010.00314.x
- Daniels, Z. M., Vanleit, B. J., Skipper, B. J., Sanders, M. L., & Rhyne, R. L. (2007).

 Factors in recruiting and retaining health professionals for rural practice. *Journal of Rural Health*, 23(1), 62-71.
- Felix, H., Shepherd, J., & Stewart, M. K. (2003). Recruitment of rural health care providers: A regional recruiter strategy. *The Journal of Rural Health*, *19*(Supplemental), 340-346.
- Fisher, D. G., Pearce, F. W., Statz, D. J., & Wood, M. M. (2003). Employment retention of health care providers in frontier areas of Alaska. *International Journal of Circumpolar Health*, 62(4), 423-435.
- Fordyce, M., Chen, F., Doescher, M., & Hart, L. (2007). 2005 physician supply and distribution in rural areas of the United States (No. 116). University of Washington Rural Health Research Center. Retrieved from http://depts.washington.edu/uwrhrc/uploads/RHRC%20FR116%20Fordyce.pdf
- Glasser, M., Hunsaker, M., Sweet, K., MacDowell, M., & Meurer, M. (2008). A comprehensive medical education program response to rural primary care needs. *Academic Medicine*, 83(10), 952-961.

- Goodwin, K., & Tobler, L. (2013). *Improving rural health: State policy options*. National Conferences of State Legislators. Retrieved from http://www.ncsl.org/documents/health/RuralHealth_PolicyOptions_1113.pdf
- Halaas, G. W., Zink, T., Finstad, D., Bolin, K., & Center, B. (2008). Recruitment and retention of rural physicians: Outcomes from the rural physician associate program of Minnesota.
 Education for Rural Practice, National Rural Health Association. doi:10.1111/j.1748-0361.2008.00180.x
- Health Workforce Information Center. (2013). Health professions recruitment and retention.

 Retrieved from https://ruralhealth.und.edu/projects/hwic/pdf/recruitment-and-retention.pdf
- Helseth, C. (2012). Active recruitment pays off for small town clinics. *The Rural Monitor*, (Spring). Retrieved from https://www.raconline.org/rural-monitor/active-recruitment-pays-off/
- Hemphill, E., Dunn, S., Barich, H., & Infante, R. (2007). Recruitment and retention of rural general practitioners: a marketing approach reveals new possibilities. *The Australian Journal of Rural Health*, *15*(6) 360-367. doi:10.1111/j.1440-1584.2007.00928.x
- Long, K.A., Weinert, C. (2013). Rural nursing: developing the theory base. In Winters C. A. (Ed.), *Rural nursing concepts, theory, and practice* (4th ed. pp. 1-14). New York: New York: Springer Publishing Company
- MacIsaac, P., Snowdon, T., Thompson, R., & Wilde, T. (2000). Case management: A model for the recruitment of rural general practitioners. *Australian Journal of Rural Health*, 8(2), 111-115.

- National Advisory Committee on Rural Health and Human Services. (2008). The 2008 report to the secretary: rural health and human services issues (No. 20th Anniversary Report).

 Retrieved from ftp://ftp.hrsa.gov/ruralhealth/committee/NACreport2008.pdf
- Renner, D. M., Westfall, J. M., Wilroy, L. A., & Ginde, A. A. (2010). The influence of loan repayment on rural healthcare provider recruitment and retention in Colorado. *Rural & Remote Health*, 10(4), 1-14.
- USDA. (2013). Rural classification. Retrieved from http://www.ers.usda.gov/topics/rural-economy-population/rural-classifications.aspx
- Wheeler, M., Endres, M., Pauley, K., Mahone, M., & Melton, N. (2013). Dr. Who? Providing stability to recruiting and retaining health care professionals in West Virginia. *West Virginia Medical Journal*, 109(4), 62-64.