Editorial

COVID - 19 and Rural Health Care

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Nurses have long been educated about the need to prepare for a possible future pandemic, it seems the future is now. During times of public health or natural disasters people who have the resources have historically fled cities to more rural locations. With this highly contagious COVID - 19 virus, rural area health resources may soon be stretched to the limit. Meit, Kennedy, and Briggs (2007) wrote about the potential rural population surge during a future pandemic scenario and the problems the burdens this could cause in rural health care systems. Those passing through rural areas may unknowingly spread a virus if the stop for fuel, food or temporary lodging. Survey data (Meit, Briggs, & Kennedy, 2008) estimated that about 25% of an urban population may evacuate the more urban areas during a pandemic, even when the government is asking them to shelter in place (p.16). The potential for urban evacuation is more likely without any government recommendation.

Early rural hotspots such as ski areas in Colorado saw transmission from both domestic and international visitors before travel bans were put into place. Rural areas that are vacation spots are more likely to see earlier COVID – 19 cases than more difficult to access or less popular rural places. However, those who think the pandemic will not reach their rural community are most likely mistaken. The surge may be later or smaller than in highly metropolitan areas, but it will take fewer numbers to quickly overtake the capacity of the rural health care system.

Since 2010 the University of North Carolina Sheps Center for Health Research (n.d.) have been reporting about the increasing number of closures of rural hospitals. As of 2019 104 rural hospitals had closed in the past decade (Fahs, 2019); with eight more closing in the first few months

of 2020. This means that the communities that have been able to rely on a hospital in the past are less likely to be able to do so today. This has raised many issues from the lack of maternal / child care in rural areas to the negative economic effect from diminished employment opportunities for rural communities.

The health care workforce is usually smaller in rural areas. Rural health care practices and facilities are known to have difficulty attracting and retaining nurses, nurse practitioners and physicians than the more urban areas (Fahs & Rouhana, 2020). Rural areas generally have more limited access to health care, fewer facilities and many are on the brink of an insufficient health care infrastructure. One positive of rural healthcare facilities is that those in the system consistently report comradery and team work as essential in rural health care. Nurses are more likely to practice to the full extent of their Licensure, with more skills developed across units and situations than typically seen in large metropolitan hospitals. Rural nurses are often *cross-trained* to have the flexibility they need to care for a wide variety of health situations that can occur in a rural facility. If a rural hospital is big enough to have an ICU, when there are no ICU patients that nurse may be cross trained for the Emergency Department (ED) or assigned to another area. Rural nurses are the *consummate generalist* (Fahs, 2017). Rural areas also have smaller Emergency Medical Systems (EMS) and often rely on volunteer EMS.

Critical Access Hospitals (CAH) are among the smallest types of hospitals and may staff the ED with a nurse practitioner (NP) or physician's assistant (PA) rather than a physician. These hospitals (CAH) have no more than 25 beds, with the possible extension of 10 beds for rehabilitation or mental health. The CAH is also supposed to discharge or transfer a patient within 96 hours according to the funding regulations. A CAH is not likely to have ICU beds and ventilators are most likely anesthesia machines for needed procedures. This type of hospital is

designed to treat and release, hold for a short time period or transfer to higher level facilities for serious problems. Some areas have rural hospitals with a bit more capacity than CAHs; yet these also tend to be smaller than urban facilities and if they do have ICU beds the number are significantly fewer than their urban counterparts. Thus, it is not hard to imagine the rural health care system being overtaxed from a pandemic even though the population sizes are smaller.

For years what is called the Rural Mortality Penalty has been recognized (Kalman, Wells, & Fahs, 2018). For reasons yet to be fully explained all-cause mortality is disproportionally higher in rural or non-metropolitan places. This means that even when controlling for some variables such as age, there are more than expected deaths in non-metropolitan versus metropolitan populations. Some of this may be due to difference in access to health care. Rural places tend to have a higher population of those 65 years of age and older and rural populations have a high mortality and morbidity rate in many major chronic illnesses such as heart disease, diabetes and chronic obstructive lung disease (Alreshidi, Kalman, Wells, & Fahs, 2020). The above types of chronic illnesses coupled with the higher population of elders indicates the rural population may be particularly vulnerable to COVID - 19 complications.

There are several rural concepts that are thought to influence how rural populations may think about health, health care and health crises. Among these are familiarity/ lack of anonymity, self-reliance, newcomer/ old-timer, insider/outsider, lack of transportation, as well as distance and isolation. Traditionally rural dwellers have defined health as the ability to work or function, (Lee & McDonagh, 2018). This remains true in certain rural populations including those that are older, male or live in areas of extractive industries (e.g. agriculture, mining, forestry, and fishing). In this group many define themselves around their ability to work and will place the need to work higher than the need for health care unless it is a major emergency or children are at a high risk.

There is less emphasis on prevention in rural populations. Familiarity, or conversely, the lack of anonymity, has both positive and negative consequences. Neighbor are more likely to know and help neighbor, *everybody knows everybody* in rural communities. However, if social distancing is the desired behavior this may be more difficult to communicate to those living in rural areas. Self-reliance often means rural citizens believe strongly that they can take care of themselves and family without outside interference. There are major problems with transportation in rural areas, particularly for those with lower socioeconomic means. In the east, it is not unusual to have to drive 45 minutes or more to get to a rural hospital or health care provider. In the west, such as places like Montana, these distances can be even longer. Some people may think *it can't happen here* when in fact a disease as contagious as COVID-19 will most likely be felt everywhere. Some places may be later in the cycle and although one would think this gives an area more time to prepare; in rural areas where access to health care is already limited, the system may be over-run sooner after the presence of the virus is known.

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