

Abstract

This report focuses on significant gaps and challenges within the healthcare system in Appanoose County, Iowa. In this report, we discuss the major shortage in healthcare professionals and the lack of educational resources to help encourage and provide opportunity for students and other community members to join the healthcare workforce. To get a better idea about the demographics within Appanoose we analyzed online resources provided statistical information related to population age, health disparities, and socioeconomic status. We conducted personal interviews with healthcare and educational professionals that currently work in the community to better understand areas of need. Alongside identifying gaps, we looked at numerous recommendations for expanding educational resources, improving healthcare programs, and effectively using technology to offer health improvements for this community. Collaborating with both the educational and healthcare institutions to integrate plausible interventions within Appanoose is key to addressing the community's challenges.

1. Introduction

The goal of this report is to better provide an in-depth analysis of the healthcare workforce in Appanoose County, Iowa. Identifying gaps and challenges within this system is key to identifying areas in need of improvement. Our research scope focuses on the resources found in healthcare institutions, educational programs, and community settings. Resources may span from opportunities for healthcare education to methods to improve job satisfaction. In addition to identifying the existing resources and areas of necessary improvement, we formulated potential interventions to improve the healthcare pathway as a whole within this community.

2. Gap Analysis: Healthcare Workforce Gaps

2.1 Opportunities

An in-depth analysis of Appanoose County revealed a gap in the healthcare workforce and substantial lack of resources for those looking to pursue a career in healthcare. Steven Haigh works for human resources at River Hills Community Health Center in Appanoose County and reported that the facility is currently having difficulties with staffing retention of doctors, nurse practitioners, dentists, and therapists (S. Haigh, personal communication, 3 October 2024). MercyOne is a hospital with a location in Centerville. MercyOne offers paid education and training pathways to individuals looking to begin a career in healthcare such as patient care technician, pharmacy tech, and student medical assistant training programs. However, the training takes place at a MercyOne location in Des Moines which is at least an hour and 45-minute drive (MercyOne, 2024). River Hills Community Health Center and MercyOne are just a couple examples of how the workforce gap that is being sustained within the county. The lack of resources extends to school age students. Haigh reported that they don't hire anyone below the age of 18 due to complexity of age and hour laws that surround having a minor at work. He also noted that most positions at the facility are full-time and would therefore interfere with school hours (S. Haigh, personal communication, 3 October 2024). Indian Hills Community College has a campus location in Centerville.

The college offers numerous healthcare and health science college level courses, but only 4 are available within Appanoose County. A certified nursing assistant (CNA) and emergency medical services courses are offered through the location. Health information technology and health insurance coding are the only other courses available within the county because they're taken asynchronously (Indian Hills Community College, 2024). Robin Spurgeon is a guidance counselor at Centerville High School in Centerville. She reported that she was aware of the CNA program available to high school level students interested in the healthcare field but was unaware of any other opportunities within the community at other facilities for students to gain experience in the field (R. Spurgeon, personal communication, 2 October 2024). There's a clear gap in the need for healthcare workers and available opportunities for individuals to begin their careers or continue education within Appanoose County. Students approaching working age have limited opportunity to work within the healthcare setting. Those same students in addition to all community members who

would like to join the workforce have few pathways to gain experience or learn about the field locally.

Haigh reported issues with staffing retention at River Hills Community Health Center, so he shared some methods he uses to retain or gain staffing and increase overall job satisfaction. He utilizes competitive compensation, benefit packages, continuing education budget, celebration of employee birthdays, flowers for staffing for relative's funerals, annual Employee Appreciation Day, employee service awards and bonus payments, the "Above and Beyond" award, etc. To enhance recruitment to his facility, he would like to see an increase in medical student slots available and an increase in physician residency programs.

Focusing on the nursing professional pathway, we researched plausible opportunities that facilities could implement to both increase staff recruitment and retain current staffing. The American Nurses Association noted a few methods to recruit quality nursing staff including connecting with nursing schools and programs, staying current on technology, broadening search through social media, asking current staffing for insight, etc. (American Nurses Association, 2023). Keeping limited financial funding in mind, one of the best ways to increase staff retention and promote staff recruitment is by simply speaking with current staffing and making a point to listen to them and note what may increase their overall satisfaction.

Encouraging an adequate work-life balance that is reflected in contracts, for example, will keep staffing happy at work and motivate them to recommend their job to others currently searching. Also, partnering with local schools to offer education opportunities encourages the incoming workforce to remain local.

As Indian Hills Community College – Centerville Campus is the only college or community college campus in the entire county, we would like to expand further on healthcare education offered at the Centerville location and increase online class options for those with limited means to drive far. Local hospitals, such as MercyOne, should also offer training courses with opportunity for onboarding at the completion of the program. Offering courses and opportunities such as certified nursing assistant programs or nursing shadow days at local facilities for high school credit encourages students to begin their careers locally as they may be more familiar with the facilities, have in house connections, and find value in working for a quality healthcare facility.

Lack of mental health resources, substance abuse resources, and women's health was reported as a standing issue by Appanoose County locals that were interviewed (R. Pfannebecker, personal communication, September 26, 2024; R. Spurgeon, personal communication, 2 October 2024; S. Haigh, personal communication, 3 October 2024.) Considering Appanoose is a very rural community with limited ability to staff physicians or other healthcare workers with specialties such as these, the next best way to increase access to these resources is through online healthcare delivery methods such as Telehealth.

Telehealth is an efficient method to provide baseline levels of care to those in need as it only quickly connects a provider with a patient without needing to leave the home. Healthcare institutions can promote the use of Telehealth to meet some of the community's needs by educating individuals who come in about the benefits of

Telehealth, helping them to create an account, and showing them how to use it. Facilities could also offer the computer and secure internet access required for those without the personal means.

3. Gap Analysis: Healthcare Workforce Development for High School Students

3.1 Opportunities

To enhance recruitment and retention efforts in Appanoose County, various strategies can be implemented. These may include offering incentives such as relocation bonuses, housing assistance, and student loan forgiveness options. Collaborating with educational institutions, including local colleges and high schools, can facilitate the development of internship programs, job fairs, and hands-on experiences. Additionally, community engagement initiatives—such as hosting events, providing networking opportunities, and establishing mentorship programs—can significantly strengthen recruitment efforts.

Opportunities to expand training and education programs within Appanoose County include collaborations with local businesses to develop tailored training initiatives that address specific workforce needs. Different opportunities such as internships, apprenticeships, or specialized courses allow for active engagement in the healthcare field. Additionally, working with community colleges and universities can enhance access to education, while distance learning programs can cater to a variety of interests and skills. To attract younger populations, after-school programs focused on STEM education and life skills, as well as educational summer camps, can be implemented to spark interest in healthcare careers. Furthermore, scholarship opportunities can incentivize individuals to pursue professions in the healthcare industry.

4. Healthy People 2030 Objectives

- 1) Increase the proportion of high school graduates in college the October after graduating SDOH-06 (U.S. Department of Health and Human Services, n.d.-b).
 - Higher education may lead to better job opportunities as well as higher income which can help to reduce poverty levels in rural communities (U.S. Bureau of Labor Statistics, 2020). Higher education may also lead to higher access to resources due to higher employment rates.
- 2) Increase the use of telehealth to improve access to health services , AHS-R02 (U.S. dept of health and human services.
 - Individuals living in rural communities would benefit from telehealth services which would reduce health disparities (Health and Human Services, nd.-d). Living in rural communities decreases access to timely medical treatment, so having the availability to meet with a healthcare provider virtually may enhance overall health outcomes.

- 3) Increase the number of community organizations that provide prevention services ECBP- D07 (U.S. Department of Health and Human Services, n.d.-a).
 - Individuals living in rural communities have limited access to healthcare so
 facilities with prevention services can promote health awareness and
 address challenges. Preventative services can reduce the incidence of
 chronic disease and encourage healthier lifestyles.

5. Nursing Diagnosis for Appanoose County

Deficient Knowledge among individuals living in Appanoose County r/t inadequate access to healthcare professionals aeb community members' verbalization of concern.

6. Evidence-Based Recommendations

To fill the gaps in the healthcare workforce in Appanoose County, some recommendations include:

- Partnerships with Educational & Healthcare Institutions: A partnership between Indian Hills Community College and local healthcare facilities can join these two forces together to create a program that relates to the lack of healthcare jobs within this county.
- Internships/Job Shadowing: In addition to education programs being developed, it may be helpful to have hands on experiences within these jobs to get students interested in this field of work.
- Incentive Programs: Developing scholarships, tuition reimbursement programs, and pay incentives for working in rural communities if these individuals agree to work in this county after graduation can help to increase the healthcare workforce.
- Telehealth Service Promotion: Offering education and workshops to individuals in this community on how to access these services can help to improve mental health and women's health services.
- Social media: This can have a huge impact on students and in some cases even influence them on which career path they end up choosing. Many times, social media influence can have a negative connotation, but in this case, it can help to improve the healthcare workforce here.

7. Explore Collaboration Opportunities

Collaborator: Local Schools

 Potential Contribution: Working with guidance counselors and other high school staff would allow the chance for students to have healthcare related classes incorporated into their general education classes. These could be dual enrollment that either can offer them experience or if taken through community colleges will help them get started early on a healthcare track.

Collaborator: Appanoose County Public Health Department

 Potential Contribution: Working with the public health department can allow students who are specifically interested in public health to shadow those involved in these roles and decide if that is something they wish to pursue.

Collaborator: Community Health Organizations

Potential Contribution: Partnering with organizations that are focused on health
for the community can give students in the community a chance to attend
workshops or classes that promote careers within healthcare. For the community
as a whole these organizations can lead seminars that discuss the health-related
challenges and recommendations for change.

Collaborator: Local Businesses

 Potential Contribution: Potential Contribution: Community investment can be a major supporter in workforce development, so getting local businesses involved can allow them to support potential internships or scholarship opportunities for students interested in healthcare careers.

8. Conclusion

This report highlights critical gaps in healthcare workforce development within Appanoose County, particularly impacting high school students. Providing students with healthcare career exploration opportunities and structured educational pathways are vital to creating a prepared and capable future healthcare workforce. Local healthcare education resources also encourage students to remain within Appanoose County upon graduation because there is opportunity for a viable career. By implementing collaborative strategies and expanding educational resources, Appanoose County can address workforce shortages and improve healthcare access for its residents. This multifaceted approach will not only enhance community health outcomes but also ensure a sustainable future for healthcare services in the region.

Resources

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Appendix A: Interview Transcripts

Interview with Rebecca Pfannebecker

Q: What are the most pressing health concerns or challenges facing your rural community?

This could be a subjective question. According to the Community Health Needs Assessment (CHNA) that we're currently working on, the top five community health concerns are mental health, substance use/abuse, obesity, child abuse/neglect, and cancers.

The top services that could use improvement according to our most recent community assessment are: mental health, women's health, primary care, and substance use.

As a public health professional, my personal opinion is that a pressing concern is our increased level of poverty and all that comes with this, including food- and housing insecurity, child abuse and neglect, medical noncompliance, substance abuse to name a few, as well as we are a healthcare desert with no maternal/OB-Gyn services, extremely limited MDs and DOs, difficult to get in to see a HCP. We do not have a local Health and Human Services office to assist with medical and food assistance.

Q: Are there any ongoing or upcoming health assessments or community health surveys that help inform your public planning?

We partner with our hospital to complete a CHNA, then we do a public health specific community health improvement plan. We are currently working on this now, to be submitted in Spring 2025.

Q: How does your office prioritize the use of funding for rural health initiatives, and what additional resources or funding do you think would be most beneficial?

Our office does not receive discretionary funding for rural health initiatives outside of grants we apply for as a Public Health / Board of Health agency. Many of the grants, of course have strings attached that limit what we are able to utilized the funding for. We instead leverage relationships in our community to focus on "Rural Health initiatives" that are identified through our Community Health Needs Assessment (CHNA) and Community Health Improvement Plan (CHIP) (both located on our website). We work with a variety of agencies (non-profit, religious, community organizations, etc.) to improve our community and expand the impact of what they are doing to fit into our CHIP work that is also tied to the 10 Essential Services of Public Health.

Q. Are there specific areas where you feel the community lacks sufficient healthcare services or resources?

We have very limited MDs and DOs, so if you are able to be seen, it is specialist like cardiology and oncology come to our specialty clinic but are hard to get into because they are so busy. Many specialties are not available, requiring a person to drive approx. 1 hr 45 minutes to Des Moines or 2 hr 45 minutes to Iowa City.

Q. What do you see as the biggest barrier to improving health outcomes for the elderly or other vulnerable groups in your area?

Always funding, but besides that, getting providers to our area.

Interview with Steven Haigh

Q. Could you share insights on employee satisfaction and engagement within your institution?

We have a number of things that we do. Below is a list of items we do to help in this regard:

- Competitive compensation and benefit package
- Insurance, Life/Ad&D insurance, retirement savings with match, and short term disability
- Continuing education budget for professional careers
- Employee birthday recognition
- Retirement celebrations
- Flowers and memorials of up to \$50 after death of a direct relative
- Employment recognition each August during National Community Health Center Week
- Employee service awards to recognize career milestones
- The Above and Beyond Award to recognize service that exceeds expectations
- Exit interviews
- Q. Describe any programs you've developed with local schools.

We are working on placing therapists in our local schools to help with mental health access.

Q. Are there jobs available for students in your clinic?

No, we only hire people over 18 years old.

Q. Please identify any specific roles within your institution that are currently facing challenges in terms of recruitment or retention.

Professional careers such as doctors, nurse practitioners, dentists, therapists, and physical therapists.

Q. Could you provide information on any significant health concerns currently affecting your community, such as opioid use?

Hypertension, obesity, and substance abuse.

Q. What resources do you envision as ideal for enhancing the services and operations of your clinic?

Increased medical student slots and physician residency programs leading to more physicians available.

Interview with Robin Spurgeon

Q. Does the high school have any partnerships or offer any health education opportunities such as CNA course, phlebotomy course, etc.? Does the school partners with other organizations?

We partner with our local community college (Indian Hills) to offer Health Academy classes.

Q. How common is a health career pathway among the students? What's the most popular health-related career path among your students?

We have ~10-15 students who participate in Health Academy every semester. Most are choosing nursing.

Q. What jobs are available for a high school level student within the community for those interested in pursuing healthcare?

We have opportunities for CNAs.

Q. Do you know if hospitals, clinics, or other healthcare organizations within the community offer healthcare education training to the community? If so, are these opportunities recommended to high school students?

No, I don't.

Q. Can you think of any community or school specific resource(s) that, in your opinion, would be beneficial to improving well-being?

We have constant need for mental health services, which is a big problem for all schools right now. We don't have enough school nurse time / coverage.