

# SafeTechSolutions

Final Report

**ASSESSMENT  
OF  
EMERGENCY MEDICAL SERVICES  
IN  
PARK COUNTY, WYOMING**

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## I. Executive Summary

As operating today, Powell Valley Healthcare Emergency Medical Services (PVH EMS) is sustainable. This sustainability is fragile, however, due to several factors, including low employee compensation compared to other similar EMS agencies, the differences between the actual and expected culture within the EMS department, revenues not being maximized, and the lack of clarity around the role and responsibility of EMS within the hospital setting. On the surface it appears PVH EMS is financially strong; however, upon deeper analysis, PVH EMS is revealed to often be operating at a loss.

While sustainability is fragile, PVH EMS does possess many of the characteristics needed to thrive. Community members and healthcare providers speak highly of the EMS service and its personnel. PVH EMS has made recruiting and retaining full-time staff a key priority to ensure it successfully navigates the national change in volunteerism. EMS staff report deep respect for their leader, and this respect is mirrored by other leaders in the community.

PVH EMS, like many rural EMS organizations in Wyoming and across the nation, is experiencing a slowly evolving crisis made up of many components, including a national change in people's willingness and interest in the EMS profession, the increasing demands of clinical care, regionalization of healthcare, ever-decreasing reimbursement paired with ever-increasing costs of readiness and operations, the decline of rural communities, the population shift to urban and suburban communities, and long transporting distances to tertiary care facilities.

Recognizing these challenges, the leaders of PVH EMS elected to apply for an agency assessment offered by the State of Wyoming Office of EMS. The focused assessment resulted in 11 major recommendations built from 23 key observations. These are listed and summarized below:

<b>Major Recommendations:</b>	
<b>1. Create a community- and county-wide shared vision for EMS.</b>	This vision should include all stakeholders, operational and clinical expectations, number of vehicles and locations, current and future community growth, and assess communities' willingness to fund the services provided.
<b>2. Ensure all who benefit from a county-wide EMS system help support it.</b>	Resolve the inequities in the way EMS is currently funded.
<b>3. Structure PVH EMS more like a business and less like a social organization.</b>	Define roles, responsibilities and accountability, and consistently enforce cultural expectations throughout the organization.
<b>4. Invest in the leadership role.</b>	Continue to invest in the training, knowledge and expertise needed to lead a rural EMS workforce.
<b>5. More deeply understand and accept the needs of an emergency medical services agency.</b>	

This includes more fully understanding the EMS agency's scope, its roles and responsibilities inside and outside the hospital setting, its workforce's schedule, space and equipment needs, etc.

**6. Maximize current revenues.**

Ensure rates match expenses, account for discounts and allowances within the EMS budget, account for all salary dollars, and resolve recruitment and retention barriers to ensure there is staff for transfers.

**7. Evaluate compensation by considering specific areas of equal size and system design.**

Note the area services that pay more for less work, with a more desirable schedule.

**8. Clearly define the role of EMS and the roles of EMS personnel within the hospital setting.**

Consider aligning EMS personnel members' in-hospital roles with their clinical scopes. Leverage members' out-of-hospital care skills within the in-hospital environment.

**9. Consider collaborative models with other agencies such as North Big Horn Hospital District and Cody.**

Collaboration could reduce duplication and minimize competition for resources such as funding and personnel.

**10. Capture 100% of interfacility transfers.**

Interfacility transfers are critical for patient care, continuation of care and hospital patient flow, and they often provide the vast majority of an EMS organization's revenue.

**11. A formal capital replacement plan should be created and fully funded.**

Using straight line or funded depreciation, ensure there is a dedicated source for future EMS capital needs.

**Key Observations:**

1. As operating today, PVH EMS is sustainable, though fragile (surviving rather than thriving).
2. EMS is a vital and desirable element of healthcare and quality of life in Park County, Wyoming.
3. Collaboration and possible consolidation between PVH and North Big Horn Hospital District's Ambulance Service could benefit both organizations.
4. Creating a structure to allow for cost-based reimbursement is unlikely to be successful and would likely adversely affect clinical care and operations.
5. PVH EMS staff report leadership (the manager) to be strong, respected, and effective.
6. Recruitment is, and will likely continue to be, a challenge for PVH EMS.
7. PVH has been proactive in providing full-time Advanced Life Support (ALS) service to its communities.

<b>8.</b> It is unclear whether PVH values the role of EMS in healthcare.
<b>9.</b> Differences arise when EMS operations and common hospital practices conflict, and these differences affect employee engagement and retention.
<b>10.</b> Roles, responsibilities, and expectations of EMS staff in the hospital environment could be better defined and more widely understood.
<b>11.</b> There is a lack of consensus about EMS in Park County, including who funds it, how to fund it, who ensures the provision of service, who governs it, and who operates it.
<b>12.</b> Opportunities for schedule flexibility should be evaluated.
<b>13.</b> The culture of PVH EMS seems to be inconsistent with the current and desired culture of Powell Valley Healthcare as a whole.
<b>14.</b> PVH EMS staff have to different and distinct cultures.
<b>15.</b> Revenue is not being maximized, as demonstrated by billing rates that are lower than the national average and less than what is needed for operational expenses.
<b>16.</b> It is difficult to understand the true financial health of PVH EMS, due to not accounting for discounts and allowances within the ambulance budget.
<b>17.</b> While shifting salary dollars and EMS employee time to the Part A budget is an important financial strategy, it may mask the true cost of providing EMS.
<b>18.</b> The inability to capture all interfacility transfers negatively affects both revenue and patient care.
<b>19.</b> Compensation and the underlying value proposition need evaluation as compared to other EMS agencies in the area.
<b>20.</b> There are some concerns about vehicle maintenance and replacement schedules.
<b>21.</b> While PVH EMS has made significant progress transitioning to a full-time business structure, it still has many club-like practices that detract from its growth.
<b>22.</b> The name and present public image of PVH EMS are inconsistent.
<b>23.</b> Consideration should be given to PVH EMS being made its own department.

## II. Introduction and Methodology

SafeTech Solutions, LLP is an EMS consulting firm with extensive knowledge of national and international EMS systems and expertise assisting in the development of rural ambulance services. In December of 2022, SafeTech Solutions, through the Wyoming Office of Emergency Medical Services, began a multi-month assessment of EMS at Powell Valley Healthcare (PVH) to consider the sustainability, reliability and long-term viability of the EMS system.

The goals of the Powell Valley Healthcare EMS assessment were to:

- Evaluate the sustainability, reliability and long-term viability of PVH EMS;

- Look for system components that are working well;
- Assess whether a collaborative relationship between PVH EMS and North Big Horn Hospital District's Ambulance Service could strengthen both organizations; and
- Make recommendations for change and improvement to strengthen long-term sustainability.

The assessment focused on area-wide needs, current operations, system design and available supporting resources, with an eye toward long-term sustainability, reliability and viability. The scope of the assessment was limited. The assessment was not an audit of the organization's finances, clinical care or organizational culture. Air medical services are considered as components of a system, but are not assessed. All data was provided by PVH itself and was validated by SafeTech Solutions' best efforts via follow-up questions and further data gathering. SafeTech Solutions provided a list of key stakeholder categories for focused interviews, and PVH selected individuals to be interviewed.

The ambulance service at PVH, as is the case for many rural, remote and frontier ambulance services across Wyoming and the United States, is facing challenges that have converged into a "perfect storm." First, the ability to recruit and retain staff is at an all-time low; second, the regionalization of healthcare means more and more demands are placed on ambulance service staff who must transport patients further distances; third, the ever-increasing cost of providing EMS, along with ever-decreasing reimbursement for services, makes financial resources available to maintain and grow EMS organizations scarce; and lastly, the multi-year effects of the COVID-19 global pandemic on organizations, leaders and current and future personnel have strained and challenged EMS in ways we are still trying to understand.

Like many rural EMS agencies, PVH EMS is facing challenges in: recruiting and retaining staff; financial sustainability; low call volume; the struggle to provide both 911 and inter-facility transports; insufficient revenues to pay for the true cost of providing EMS; one entity (PVH) paying the lion's share of the costs for EMS on behalf of all communities they serve; the regionalization of healthcare; and demands for ever-more-sophisticated out-of-hospital clinical care. These concerns, among many others, led the organization to request an assessment through the Wyoming Office of Emergency Medical Services.

SafeTech Solutions' approach to assessments capitalizes on the firm's extensive understanding of rural EMS systems and experiences working with leaders and organizations nationwide. The assessment team for the PVH EMS project gathered quantitative and qualitative data through research, site visits, interviews and requests for documentation. Two consultants visited PVH EMS to review documents and data, conduct interviews and assess operations. In addition to evaluating the ambulance service (including organizational structure, leadership and operations), SafeTech Solutions researched and deeply considered the social, economic, demographic, cultural and political issues in the wider area.

SafeTech Solutions' process aims to produce specific recommendations based on industry best practices that are meaningful, measurable and actionable. This report summarizes the findings, key observations and recommendations resulting from the assessment process.

### III. Overview of Park County, Wyoming

Park County, located in the northwest corner of the state of Wyoming, is best known for its location comprising the majority of Yellowstone National Park.<sup>1</sup> A major tourist destination, the area is filled with a wide variety of other attractions, including museums, an annual rodeo, and access to many outdoor activities.

Officially formed in 1909, Park County was initially part of Sweetwater County. Originally, the area was home to various mountain and plains people, such as the Crow, Shoshone, and Arapaho. Settlement of the area began in earnest in the 1870s, with ranchers, farmers, and others moving in. Despite this, the land remained lightly populated for another two decades.

In 1890, Big Horn County was formed in the Bighorn Basin. It wasn't until 1909 that Park County was created out of the western half of Big Horn County, though settlements in the area had first begun appearing in the 1880s.<sup>2</sup> Early towns included Meeteetse, home of Pitchfork Ranch, one of the oldest cattle and sheep ranches in the region; Cody, which was founded in 1896 lying a little over 53 miles to the east of Yellowstone National Park; and Powell, which was founded in 1910<sup>3</sup> and is considered to have some of the best schools in the state.<sup>4</sup> Other locations in Park County include Frannie, Garland, Mammoth, and Ralston.

Electrical power came to the area between 1912 and 1938, as the Rocky Mountain Power Company — originally named the Utah Power and Light Company — made its way into the states of Idaho, Wyoming, and Colorado from Utah. Rocky Mountain Power extended service to rural areas, with farmers using the electricity to pump irrigation water.<sup>5</sup>

Today, Park County boasts first-class health facilities, including Powell Valley Healthcare in Powell, Wyoming; Heart Mountain Volunteer Medical Clinic; Bighorn Medical Center; and West Park Hospital in Cody, Wyoming. There is also Cody Regional Health Meeteetse Clinic in Meeteetse, Wyoming.

Major population centers in Park County include Cody, Powell, Frannie, and Meeteetse, as detailed below:

#### **Cody**

Cody, Wyoming, is named after Colonel William Frederick “Buffalo Bill” Cody, who was one of the town’s founding members. The Yellowstone Trail, the first transcontinental highway, enters Yellowstone National Park at Cody. The town’s primary industry is tourism, and Cody is home to museums, visual art displays, and the Cody Nite Rodeo, which runs from June 1 to August 31.

<sup>1</sup> Park County. *Park County: Welcome to Park County*. (n.d.). <https://parkcounty-wy.gov/#:~:text=Park%20County%20was%20established%20in.majority%20of%20Yellowstone%20National%20Park>

<sup>2</sup> Houze, L. J. (2014). Park County, Wyoming. In *Wyohistory.org encyclopedia*. Retrieved April 26, 2023, from <https://www.wyohistory.org/encyclopedia/park-county-wyoming>

<sup>3</sup> Ibid.

<sup>4</sup> Niche. (n.d.). *2023 Places with the Best Public Schools in Wyoming*. <https://www.niche.com/places-to-live/search/places-with-the-best-public-schools/s/wyoming/>

<sup>5</sup> Archives West. (2017). *Rocky Mountain Power Company Records, 1876-1992*. <https://archiveswest.orbiscascade.org/ark:/80444/xv10003#:~:text=The%20Rocky%20Mountain%20Power%20Company%2C%20originally%20known%20as%20the%20Utah, served%20by%20Rocky%20Mountain%20Power>

### **Powell**

Home to Northwest College, Powell is a small town near the county's border with neighboring Big Horn County. Incorporated in 1909, Powell is named after explorer, geologist, and U.S. soldier, John Wesley Powell.

### **Frannie**

Located in both Park and Big Horn Counties, Frannie wasn't incorporated until 1954. Named after the daughter of the area's first postmaster, Frannie is only two miles from the Montana border and relies on a series of pipelines and canals for irrigation for the population and area farms and ranches.

### **Meeteetse**

Receiving its name from the Shoshone American Indian Nation term for "nearby," Meeteetse, Wyoming, is home to the Meeteetse Chocolatier, which sells gourmet chocolate. In addition, there are a number of museums located in the town and a monastery operated by the Monks of the Most Blessed Virgin Mary of Mount Carmel.

## **Summary of Park County**

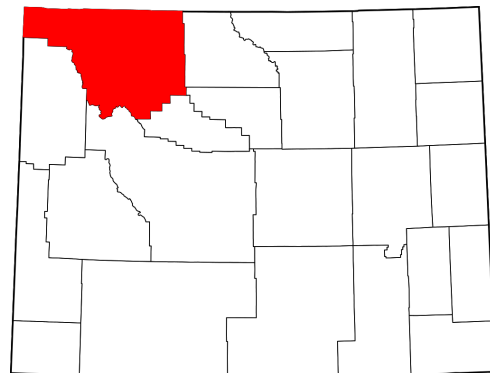
Park County's proximity to Yellowstone National Park makes it a busy tourist destination. The pristine nature of the area affords ample opportunities for outdoor activities, including hiking, camping, fishing, climbing, and more. The influx of yearly visitors to the area, in addition to local residents, makes accounting for out-of-hospital EMS a necessity.

## **The Land**

Of Park County's 6,967 square miles, only 25 square miles are water. Three rivers flow through the county, including the Greybull and Shoshone Rivers, which are tributaries of the Big Horn River, and Clark's Fork River, which flows into the Yellowstone River. The largest body of water in Park County is Buffalo Bill Reservoir, located to the west of Cody, Wyoming.

The Yellowstone Trail runs through the center of the county through Cody, and serves as a major entryway into Yellowstone National Park. The highest point in Park County is Fortress Mountain, which is 12,090 feet above sea level.<sup>6</sup>

In addition to Yellowstone National Park, a majority of the Shoshone National Forest, the country's first national forest, lies within the county. Only 23% of the land in Park County is privately



Source: Wikimedia Commons

<sup>6</sup> *Fortress Peak*. (2004). Peakbagger.com. <https://www.peakbagger.com/peak.aspx?pid=5303>



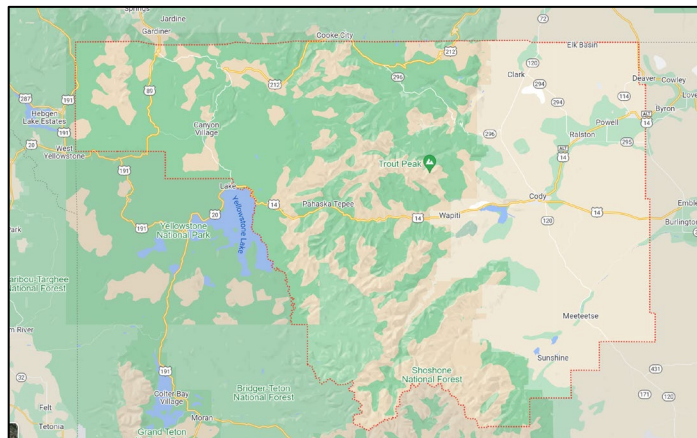
owned. The remainder is under state or federal control.<sup>7</sup>

## Transportation

Overall, Park County has 621 miles of public roads. Out of this number, roughly 279 miles are paved, 190 are gravel, and an additional 144 miles are unimproved. There are also miles of private roads and drives that are not a part of the Park County Road System. Access to private roadways in the county is sometimes a challenge, requiring four-wheel-drive vehicles and making emergency response somewhat challenging.<sup>8</sup>

Running down the middle of the county from east to west is U.S. Highway 14, also known as the Yellowstone Trail because of its service as entry point into Yellowstone National Park. Another major thoroughfare through the county is U.S. Highway 14 Alternate, which enters the county from adjacent Big Horn County to the east before traveling to the southwest through Powell and Ralston, Wyoming, and intersecting U.S. Highway 14 at Cody.

Other roadways include State Highway 120, which enters the county to the north from the state of Montana heading south to Cody. The highway branches off from U.S. Highway 14 east of Cody, heading roughly to the southeast, where it crosses the Greybull River at Meeteetse, before passing into Hot Springs County.



State Highway 294 branches off from U.S. Highway 120 in the northern part of the county near Clark, Wyoming. U.S. Highway 221 also makes a sojourn into the county from Montana, traveling through a short section of mountainous terrain, and passing back into Montana near Pilot Peak. There are many smaller roadways, too, that travel through the mountains and highlands in the western half of the county,

Airports in Park County include Powell Municipal Airport in Powell, Wyoming; Cody Regional Health Heliport in Cody, Wyoming; and Yellowstone Regional Airport, which is also located in Cody. Powell Municipal Airport sees about 92 aircraft operations per week, with 75% of those local general aviation, 19% transient general aviation, and 6% air taxi operations.<sup>9</sup> Cody Regional Health Heliport is a small private heliport, which is employed primarily for medical flights.<sup>10</sup> Yellowstone Regional Airport hosts, on average, 69 aircraft operations per day, with 75%

<sup>7</sup> Park County. *Park County: History of Park County*. (n.d.). <https://parkcounty-wy.gov/about-us/#:~:text=History%20of%20Park%20County&text=During%20Wyoming's%20territorial%20days%2C%20Park,that%20Wyoming%20became%20a%20state>

<sup>8</sup> Park County Sheriff's Office. *Patrol*. (2017). <https://www.parkcountysheriff.net/patrol/#:~:text=Park%20County%20consists%20of%20621,the%20Park%20County%20Road%20System>

<sup>9</sup> AirNav, LLC. (2023, April 26). *Powell Municipal Airport*. <https://www.airnav.com/airport/KPOY>

<sup>10</sup> AirNav, LLC. (2023, April 26). *Cody Regional Airport*. <https://www.airnav.com/airport/WY62>

of those local general aviation, 17% transient general aviation, 8% air taxi, and less than 1% commercial and military operations.<sup>11</sup>

### Land Use, Tourism & Industry

With over 53% of Yellowstone National Park located within its borders, Park County dedicates much of its land to tourism. In addition to Yellowstone National Park, other area activities include museums and the Shoshone National Forest, which is a part of the Greater Yellowstone Ecosystem.

Park County also contains over 929,000 acres of farmland. Agricultural products include grains, dry beans, dry peas, hay, and other crops. Raising livestock, particularly sheep and goats, is also a major industry in Park County, including products derived from livestock.<sup>12</sup>

Mining in Park County is for gypsum, uranium, copper, gold, silver, lead, and zinc. Zinc is the main metal mined in Park County.<sup>13</sup>

In addition to tourism, employment in the service industry, retail trades, and construction industries form the base of Park County's economy.<sup>14</sup> Other employment opportunities exist in management, office and administrative support, and sales, as well as with Northwest College in Powell and Cody, Wyoming.<sup>15</sup>

### The People

In 2021, the population of Park County was 30,108. This is an increase of 1,903 over the population in 2010, which was 28,205.<sup>16</sup> Out of the more than 12,500 households in Park County, 70% are occupied by married couples, 12% are occupied by single parents, and another 17% are non-family households.<sup>17</sup> A large majority, 91%, of the residents in Park County are White. In addition, 6% are Hispanic, 1% are Black, 1% are American Indian, and 1% are Asian.<sup>18</sup>

Park County has four incorporated areas: the cities of Cody and Powell, and the towns of Meeteetse and Frannie. There are also the census-designated places of Garland, Mammoth, and Ralston, in addition to smaller unincorporated communities spread throughout the county. About 57% of the population lives in one of the incorporated cities or towns. The remainder of the county's residents lives in the census-designated or unincorporated parts of the county.

### Park County's Incorporated Town Populations

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<sup>11</sup> AirNav, LLC. (2023, April 26). *Yellowstone Regional Airport*. <http://airnav.com/airport/kcod>

<sup>12</sup> United States Department of Agriculture, National Agricultural Statistics Service. *2017 Census of Agriculture County Profile: Park County, Wyoming*.

[https://www.nass.usda.gov/Publications/AgCensus/2017/Online\\_Resources/County\\_Profiles/Wyoming/cp56029.pdf](https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Wyoming/cp56029.pdf)

<sup>13</sup> *Park County, WY Mines*. (2023). US-Mining.com. <http://www.us-mining.com/wyoming/park-county>

<sup>14</sup> Park County. *Park County: About Park County*. (n.d.). <https://parkcounty-wy.gov/about-us/#:~:text=The%20major%20industries%20of%20Park,also%20part%20of%20Park%20County>

<sup>15</sup> *Park County, WY*. (n.d.). DATA USA. Retrieved April 26, 2023, from <https://datausa.io/profile/geo/park-county-wy#economy>

<sup>16</sup> U.S. Census Bureau. (2023, March 30). *QuickFacts: Park County, WY*. Retrieved April 26, 2023, from <https://www.census.gov/quickfacts/fact/table/parkcountywyoming/PST045221>

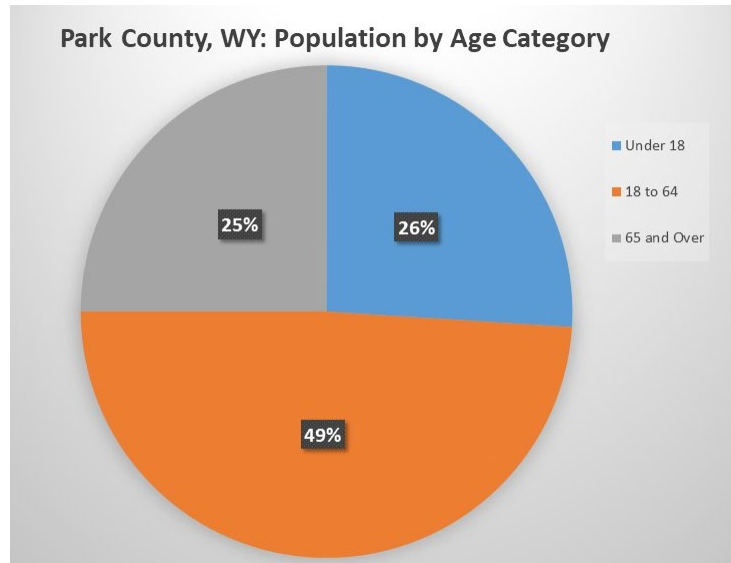
<sup>17</sup> *Park County, WY*. (n.d.). Census Reporter. Retrieved April 26, 2023, from <https://censusreporter.org/profiles/05000US56029-park-county-wy/>

<sup>18</sup> U.S. Census Bureau. (2023, March 30). *QuickFacts: Park County, WY*. Retrieved April 26, 2023, from <https://www.census.gov/quickfacts/fact/table/parkcountywyoming/PST045221>

Town	Population	Square Miles
Cody	10,174	10.46
Powell	6,418	4.29
Meeteetse	314	0.87
Frannie	142	0.44
<b>TOTAL</b>	<b>17,048</b>	

Source: U.S. Census Bureau

Less than 26% of Park County residents are under the age of 18, while 49% are working-age adults ranging from 18 to 64. Another 25% of Park County residents are age 65 and older.<sup>19</sup>



In addition to its year-long residents, Park County sees a large number of tourists each year. Many of the area visitors travel to Yellowstone National Park, which welcomed 4.9 million visitors in 2021.<sup>20</sup> This additional population must be taken into account when planning

emergency medical resources. Visitors to the area use EMS as opposed to their personal physicians, especially when they are involved in emergency medical situations.

The population in Park County is projected to increase to 30,210 by 2025. By 2030, the population is expected to be 30,900, with numbers likely to reach 31,360 by 2035 and 31,780 by 2040.<sup>21</sup> Population growth, in addition to the large yearly influx of tourists, means that area administrators must plan accordingly when allocating resources for area emergency medical services.

### The Economy

In Park County, Wyoming, the median household income is \$63,684.<sup>22</sup> This is \$1,620 less than the median household income of \$65,304 in the state of Wyoming overall.<sup>23</sup> Over 21% of households in Wyoming make between \$70,000 and \$200,000, while roughly 1% make over \$200,000.<sup>24</sup>

<sup>19</sup> Ibid.

<sup>20</sup> National Park Service. (2023, February 27). *Visitation Numbers*. <https://www.nps.gov/aboutus/visitation-numbers.htm>

<sup>21</sup> Wyoming Department of Administration & Information, Economic Analysis Division. (2019, August). *Population for Wyoming, Counties, Cities, and Towns: 2010 to 2040*. <http://eadiv.state.wy.us/pop/wyc&sc40.htm>

<sup>22</sup> *Park County, Wyoming*. (n.d.). DATA USA. Retrieved April 26, 2023, from <https://datausa.io/profile/geo/park-county-wy>

<sup>23</sup> *Wyoming*. (n.d.). DATA USA. Retrieved April 26, 2023, from <https://datausa.io/profile/geo/wyoming>

<sup>24</sup> *Park County, Wyoming*. (n.d.). DATA USA. Retrieved April 26, 2023, from <https://datausa.io/profile/geo/park-county-wy#economy>

In Park County, 7.3% of the population lives at or below the poverty line.<sup>25</sup> This is lower than the overall poverty level of 10.8% in the state of Wyoming.<sup>26</sup> Unemployment in Park County is at a relatively low 2.7%,<sup>27</sup> which is slightly lower than the 3.3% unemployment rate for the state of Wyoming overall.<sup>28</sup>

In Park County, around 88% of the population has some form of health insurance, with 45% on employee plans, 24% on Medicare and Medicaid, 16% on non-group plans, and 3% with military or VA plans. This means that 12% of the residents in Park County are uninsured.<sup>29</sup>

## IV. Overview of the Powell Valley Healthcare EMS System

The emergency medical services (EMS) needs of the citizens of Park County, Wyoming, are currently provided by Cody Regional Health in the western section of the county and Powell Valley Healthcare (PVH) EMS in the northeast. PVH EMS is a licensed Advanced Life Support (ALS) ambulance service, with a coverage area of approximately 1000 square miles. Powell Valley Healthcare employs the staff of the EMS division, providing full-time EMS coverage to the citizens of Powell and the surrounding area.

PVH EMS is staffed at a level to respond with ALS to the vast majority of the emergency call requests received. PVH EMS employs a full-time director who also serves the hospital as a Registered Nurse. The director's primary function is leadership of the ambulance division, though the role does include some additional responsibilities in the healthcare facility. In 2017, Powell Valley Healthcare made the decision to employ EMS staff to cover a full-time schedule.

There are five ambulances on PVH EMS's asset list. One ambulance is described as being in cold storage and is not actively being used. The other four ambulances have been designated for specific lines of service, either emergency response or interfacility transports.

PVH EMS responds to approximately 1500 requests for service annually. Of these requests for service, roughly 80% are for emergency responses while the remaining 20% are for interfacility transports or standby event coverage. Of the interfacility transports, more than 90% list facilities in Billings, MT as the destination.

Powell Valley Healthcare is classified as a Community Trauma Center by the State of Wyoming, or a Level IV trauma center according to designations given by the American College of Surgeons. The current level of services provided at Powell Valley Healthcare makes the need for interfacility transports ever-present. The demand for interfacility transports is often not met by PVH EMS, and many are completed by other EMS providers. PVH EMS thus cedes valuable business benefits these transports could bring to the system.

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<sup>25</sup> Ibid.

<sup>26</sup> *Wyoming*. (n.d.). DATA USA. Retrieved April 26, 2023, from <https://datausa.io/profile/geo/wyoming>

<sup>27</sup> *Unemployment rate in Park County, WY*. (n.d.). FRED. Retrieved April 26, 2023, from <https://fred.stlouisfed.org/series/WYPARK9URN>

<sup>28</sup> *Unemployment rate in Wyoming*. (n.d.). FRED. Retrieved April 26, 2023, from <https://fred.stlouisfed.org/series/WYUR>

<sup>29</sup> *Park County, WY*. (n.d.). DATA USA. Retrieved April 26, 2023, from <https://datausa.io/profile/geo/park-county-wy#economy>

Staffing levels at PVH EMS are consistent for the provision of emergency responses to the citizens within the organization's service area. The assessment found the schedule for regular shift coverage to be minimally acceptable for emergency and non-emergency responses within the service area; however, the current schedule is not suitable for the consistent provision of service for interfacility transports.

All ambulances are housed on the grounds of Powell Valley Healthcare. The assessment revealed some concerns regarding maintenance of ambulances and equipment. Some staff cited major concerns with maintenance, limiting their ability to provide care. There is no designated space for EMS staff within the hospital. The EMS division does have access to space within the hospital to conduct training and if necessary, quiet rooms for staff. While working, staff are part of the team in the Emergency Department and function at levels within their scopes of practice. Wages paid to PVH EMS staff vary between their roles within the Emergency Department and time on the ambulance.

### **Call Taking, Dispatch & Communications**

Park County has duplicate Public Safety Answering Points (PSAPs) which share the dispatching responsibilities for the county. The service based in Cody provides dispatching to agencies on the western side of Park County, while Powell Police Department provides similar services to the eastern side of Park County. Powell Valley Healthcare contributes a reported \$35,000 annually for the dispatch services received.

PVH EMS vehicles are all equipped with radios that connect to WYOlink via 800 MHZ. Staff admitted this option is not utilized often, and there appears to be inconsistent coverage through WYOlink. VHS communication is the preferred method.

Powell Police Department provides prearrival instructions to 911 callers through nationally recognized vendors. All dispatch staff hold the certification of Emergency Medical Dispatchers and screen every request for ambulance received.

Notification to the PVH EMS team is made via VHF pagers as well as text alerts to crew members' cellular phones. The assessment found no recollection of any calls not responded to.

### **First Response**

Powell Police officers respond to all requests for service received within Powell city limits. Park County Sheriff's Office deputies respond to requests for service when available and in the region. Powell Police vehicles are equipped with first-aid kits as well as Automatic External Defibrillators (AEDs). Powell Valley Healthcare provides training to officers in the administration of first-aid as well as CPR and the use of the AED.

Aside from Powell Police and Park County Sheriff's Office, the only first responder team PVH EMS works with is the Clark Fire Department. Clark Fire Department is activated primarily for automobile accidents and lift assists. The department is equipped with first-aid supplies as well as AEDs. Clark Fire Department members have not completed a Certified Emergency Vehicle Operator (CEVO) course, and some confusion exists as to their authorization to drive ambulances when needed.

### **Ground Ambulance Service**

PVH EMS provides service to approximately 1000 square miles in northeastern Park County. These services include emergent and non-emergent responses to requests for service as well as interfacility transports originating at Powell Valley Healthcare. Staffing levels maintain consistent coverage for the emergent and non-emergent call volume; however, staffing levels are not consistent to respond to all interfacility requests from Powell Valley Healthcare. Approximately 30% of all interfacility transports are being served by other ambulance services.

### **Air Medical Service**

Air medical services are utilized sporadically for scene responses. On average, PVH EMS request air medical to a scene 4 to 6 times per year. Interfacility requests for air medical have been steadily increasing. Historically, air medical was requested 4 to 5 times per month for interfacility transports. With PVH EMS's current staffing challenges, requests for air medical interfacility transports have risen to 4 - 5 requests per week. Medical staff from Powell Valley Healthcare indicate air medical may be unnecessary for some of these transports; however, no other ground ambulance provider is available to facilitate these requests.

### **Receiving Facilities & Other County Healthcare Resources**

Powell Valley Healthcare is the primary receiving facility for all emergent and non-emergent requests. The facility is a Level IV trauma center and offers a significant number of services for a community hospital. Additional specialists are currently being added to Powell Valley Healthcare's staff, a development that will enable more patients to remain local.

When interfacility transports are needed, greater than 95% of these list Billings, MT as the destination. Billings is located approximately 100 miles north of Powell. Billings is home to a Level II trauma center.

### **Mobile Integrated Health**

Mobile Integrated Health or Community Paramedicine/EMS is not available in the Powell, WY area at this time.

### **EMS Education**

Northwest College, with a campus in Powell, provides a majority of the EMS education in the area. Northwest College has a paramedic program, based in Cody, WY, which has graduated its first cohort of students and currently has a second cohort in progress.

Continuing education for PVH EMS is provided by a combination of Northwest College and in-house education, meeting the needs of registration.

### **EMS System Oversight**

In 2017, Powell Valley Healthcare made the decision to increase the staffing level of their ambulance service to full-time. Today, a full-time director with primary oversight of the ambulance service is in place. This director, a Registered Nurse with significant experience in the out-of-hospital setting, is the primary point of contact for the ambulance operations.

The ambulance director reports to the Director of the Emergency Department. The ambulance director is seen as a member of the Powell Valley Healthcare leadership team.

Clinical oversight is provided by Dr. Aaron Billin, Emergency Physician and Medical Director for the ambulance service. Dr. Billin is active in the review of patient care reports as well as decision-making regarding course scheduling, clinical protocols, and equipment.

### **How the EMS System Currently Works**

Today, on-duty EMS staff are actively working in the Emergency Department of Powell Valley Healthcare. When a request for ambulance service is received, these staff members shift from their Emergency Department roles to their roles on the ambulance service. This change in roles also entails a change in pay levels. Staff are required to maintain accurate records tracking their time spent in their different roles.

To facilitate this schedule, PVH EMS lists 28 staff on their active roster. The make-up of staff includes:

- 7 Registered Nurses (with EMT – B or EMT – I certifications)
- 8 Registered Paramedics
- 1 EMT – I
- 4 AEMT
- 8 EMT – B

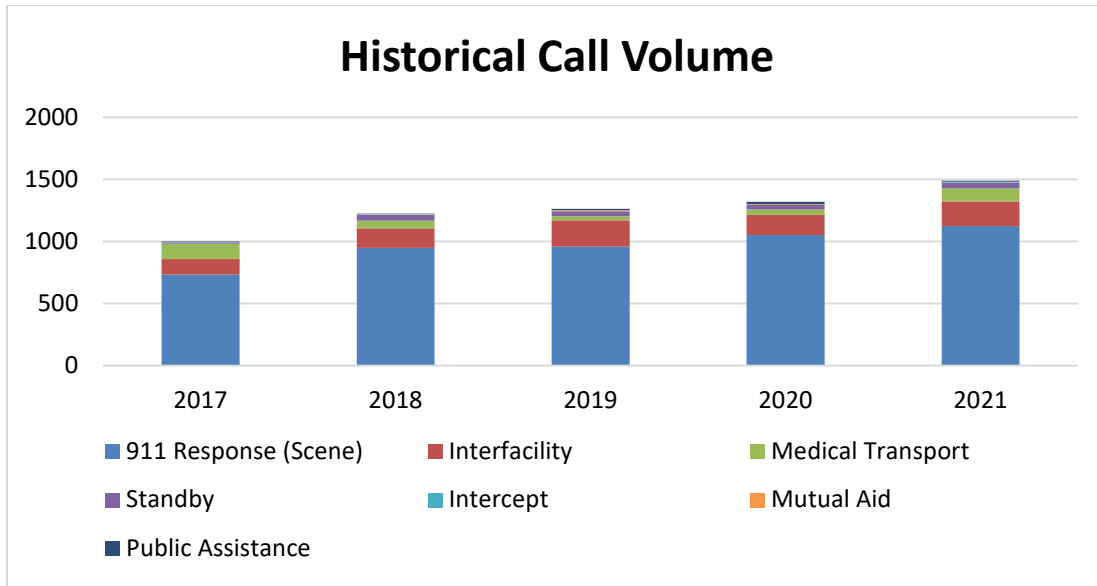
All staff members originate from the Emergency Department when working shifts. Staff are notified of requests for service by pager and by cellular messages sent by the local PSAP. Ambulance chute times are typically within 3 minutes of notification.

Powell Valley Healthcare receives approximately 90% of all patient transports, with Cody Regional Healthcare receiving the remaining 10%. Patients in need of tertiary care or care levels beyond what Powell Valley Healthcare can provide are transported to other facilities, 95% of the time in Billings, MT. Ground ambulance services, including PVH EMS, are not consistently available for these transports. Air medical services are utilized often – and at times, for patients not meeting the medical/trauma criteria for air medical services.

Upon completion of the ambulance call, crew members complete documentation electronically through the system provided by the Wyoming Office of Emergency Medical Services and Trauma. These reports are reviewed for completion and sent to Powell Valley Healthcare’s business office, where patient billing originates.

### **Call Volume**

PVH EMS responds to approximately 1500 requests for service annually. Of these, 76% are listed as emergent or non-emergent requests for service through the 911 system; 21% are listed as interfacility or medical transports (flight crew transports); and the remainder of calls are for standby events, intercepts, or public assistance.



	2017	2018	2019	2020	2021	2022
911 Response (Scene)	734	948	960	1052	1123	979
Interfacility	125	157	210	163	200	147
Medical Transport	123	63	33	42	104	107
Standby	11	45	40	38	47	57
Intercept	4	6	3	2	4	6
Mutual Aid	3	3	7	5	4	2
Public Assistance	3	2	11	18	8	14
<b>Total</b>	<b>1003</b>	<b>1224</b>	<b>1264</b>	<b>1320</b>	<b>1490</b>	<b>1312</b>

## V. Description of Powell Valley Healthcare EMS

### Historical Development

Since 2017, PVH EMS has operated as a full-time service. The ambulance service is considered a department of Powell Valley Healthcare.

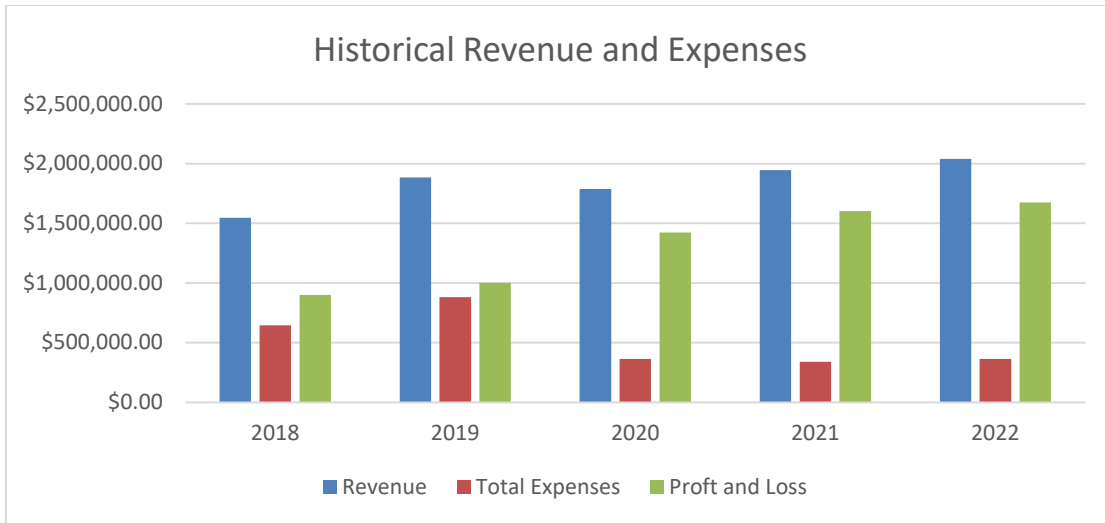
### Internal Structure

The leadership of PVH EMS reports to the Director of the Emergency Department of Powell Valley Healthcare. PVH EMS staff report to the director of the ambulance service, with oversight of all operations provided by the Chief Executive Officer of Powell Valley Healthcare.

### Financial Structure

PVH EMS does not receive any subsidies for operational needs outside of the assistance provided directly by Powell Valley Healthcare.





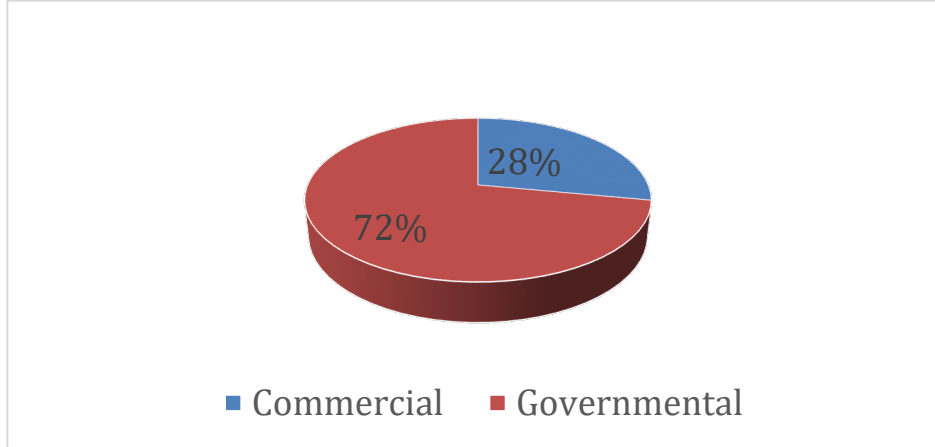
	2018	2019	2020	2021	2022
Revenue	\$1,547,420.00	\$1,883,789.00	\$1,786,833.00	\$1,944,163.00	\$2,038,944.00
Total Expenses	\$646,101.90	\$880,939.97	\$364,572.93	\$340,961.44	\$363,668.67
Profit and Loss	\$901,318.10	\$1,002,849.03	\$1,422,260.07	\$1,603,201.56	\$1,675,275.33

PVH EMS, like many rural hospital-based EMS organizations, uses EMS personnel in other roles in the hospital setting. When EMS personnel work in the hospital, their salary costs are shifted to a non-EMS budget. This practice lowers the expenses in the EMS budget. On the surface, this practice seems practical; however, it also results in EMS expenses appearing lower than is accurate. Today, Powell Valley Healthcare pays the full cost of providing EMS to all residents and visitors in the area it serves. Long-term sustainability will likely require all communities it serves to financially contribute; having a budget that shows the full cost of EMS will be important for guiding conversations about funding.

Accounting for all costs:



The payor mix for PVH EMS is as follows:



**Equipment, Facilities & Vehicles**

PVH EMS lacks a facility specifically designated as ambulance operational space. Ambulances are kept on the hospital property, and on-duty staff function within the Emergency Department while not on calls. Ambulance operations does have the ability to reserve larger rooms at the hospital for training as well as utilization of quiet space for crew members if necessary.

Data as presented on the vehicles:

Year	Make	Miles	Usage	Unit #
2000	F-350	231611	Cold Storage	MS243
2006	E-450	159000	OOS/engine	MS113
2008	Chevy 3500	231102	ER/primary	MS227
2017	F-350	75510	ER/primary	MS275
2020	Transit	67278	Transfers	MS309

The ambulance listed in cold storage is considered out of service, and there are no immediate plans in place to have it repaired. There are plans to repair the ambulance listed as out of service due to engine issues. A new ambulance is on order, although its expected delivery date is unknown.

The assessment found equipment in the ambulances in good working order. Equipment appears to be updated, and processes were reviewed for vehicle readiness checks, equipment performance verification, and cleanliness.

**Clinical Care, Medical Direction & Quality Assurance**

Interviews did not reveal any concerns about the quality of patient care being administered by PVH EMS. The ambulance service Medical Director is active in the review of patient care reports each month; however, he reports spending less time on EMS than he desires.

Today, there is no formal Quality Assurance program in effect for PVH EMS. This need is filled only by the review of patient care reports by the Medical Director and comments he offers based on that review. There is no process in place to measure care administered according to the ambulance service's patient care guidelines/protocols.