Strategies for Combatting Radiologist Supply Shortages

Recommendations to help your organization maintain adequate coverage

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The field of diagnostic radiology is undergoing significant transformation driven by advancements in technology, the increased demand for imaging to support cancer patients, and the integration of artificial intelligence (AI) into key workflows. As imaging becomes increasingly central to patient care, health systems are working to ensure their staffing models for this key service line are highly functioning as related challenges and opportunities arise.

Presented via a series of case studies, this article illustrates key obstacles many organizations are facing as the demand for radiologists continues to grow but the supply of providers falls short. Given the implications these shortages could have on patients and the broader medical community, this issue has raised concerns among health care providers across the nation. As health systems look to address these challenges and maintain coverage, many are reevaluating the way they contract, employ, and compensate radiologists.

Market Perspective and Changing Landscape

According to the American College of Radiology (ACR), the demand for diagnostic imaging services is rapidly increasing. This is driven by an aging population, chronic disease management, and the growing reliance on imaging for diagnosis and treatment planning. However, the supply of radiologists is not keeping up with this demand. The ACR reports that the shortfall could reach as high as 19,500 radiologists by 2036.

This shortage is further compounded by an aging radiologist workforce and limitations on new entrants into the field. In other fields of medicine, other clinicians such as advanced practice providers have been critical in helping to improve or maintain patient access amidst ongoing physician shortages. However, in diagnostic radiology, there is no equivalent alternative workforce available. Organizations are also facing several recruitment and retention challenges within this specialty as professionals can be more selective in a competitive job market that includes non-traditional options like teleradiology. Additionally, there is growing concern that technological advancements, such as AI and automation, cannot fully replace the expertise and decision-making capabilities of human radiologists. As the shortage continues to grow, the ACR is calling for action to address this gap through measures such as expanding training programs, promoting workforce diversity, and leveraging technology to enhance the efficiency of radiological services.

The ACR also notes the challenges faced by regional private radiology groups in its research. The decline of these groups has been attributed to several factors – including consolidation within the health care industry, financial pressure from declining reimbursement, the rise of corporate-owned radiology groups, and the growing complexity of managing practices in a competitive job market. These pressures are leading to concerns about the shrinking number of independent radiology practices and the impact this may have on job satisfaction, autonomy, and the quality of patient care.

How are Organizations Addressing These Issues?

Please note *these are real organizations with fictional names.*

Case Study #1: Radiology Coverage for a Midwest Community Hospital

Midwest Community Hospital (Midwest) is a 400-bed medical center that partnered with a local independent medical group (the Group) to provide diagnostic and interventional radiology services.

The partnership operated under a professional services agreement (PSA) in which the Group billed for imaging services and Midwest subsidized the Group by covering the gap between the professional collections – minus Group operating expenses – and the market rate for imaging services.

In early 2024, the Group notified Midwest that it would terminate the PSA due to chronic staffing shortages and financial difficulties arising from the structure of the original agreement. As a result, Midwest was left with limited options for securing imaging services moving forward.

These options included:

1. **Directly employ** its own radiologists
2. **Renegotiate** the terms of the existing PSA to maintain the current Group's coverage
3. **Enter into a new PSA** with a national radiology firm

Midwest believed that employing its own radiologists directly was the least feasible option considering ongoing recruitment challenges and supply and demand imbalances. Although the organization attempted to renegotiate with the Group, discussions regarding the financial terms of the original PSA proved unproductive as the Group felt the arrangement was no longer sustainable due to the high market rates being requested by new recruits coupled with retention challenges among its existing workforce.

As a result, Midwest entered into negotiations with the national imaging firm and put a new PSA in place that replicated the compensation structure of their previous arrangement. However, Midwest was unaware that the national firm did not have adequate staffing and had attempted to recruit radiologists from the Group to ensure it could provide enough coverage to meet demand. This led to resistance from the Group's radiologists – leading them to reject the firm's recruitment efforts. As a result, the national imaging firm was forced to terminate the PSA with Midwest before it even began.

With no new options available and still without the imaging services it required, Midwest returned to discussions with the Group for providing coverage. The Group requested a completely new compensation structure that shifted from an FTE-based compensation arrangement to a work relative value unit (wRVU) compensation model. Under this new model, Midwest would assume responsibility for billing and collecting for imaging services provided by the Group and pay them a market rate per wRVU.

While this new compensation model resulted in higher costs, the hospital concluded that this was the best choice in order to serve their patient population. This decision was based on the critical need to provide uninterrupted imaging services in the future.

Case Study #2: Radiology Coverage for a Regional Hospital in the Northeast

Similar to Midwest's experience, Northeast Regional Health System (Northeast) faced its own radiology coverage challenges under similarly difficult circumstances, but with different potential solutions.

Northeast includes a 450-bed medical center and several outpatient facilities. Regional Radiology Associates (RRA) is a 20-person radiology group that partnered with Northeast for over 50 years to provide nearly all radiology interpretations at Northeast's hospital and three separate outpatient facilities on a 24 hours a day, 365 days a year basis. In the fall of 2024, RRA abruptly provided Northeast with 60 days of notice that it would only provide these services Monday through Friday between the hours of 8:00 AM and 4:00 PM – representing a significant reduction in service.

Given Northeast's reliance on this arrangement, the organization swiftly engaged in negotiations with RRA to provide the required radiology coverage services on a long-term basis.

Those attempts failed, however, and there were no other local radiology groups who were credentialed and able to provide the required coverage upon completion of RRA's 60-day notice period.

As such, the organization was forced to evaluate other options. Northeast quickly secured remote radiology coverage from a national locum tenens agency from 3:00 PM to 11:00 PM seven days per week and remote overnight coverage from a national teleradiology firm from 11:00 PM to 7:00 AM seven days per week. However, hospital and payer credentialing processes were expected to take longer than 60 days to complete, so Northeast was forced to negotiate an interim PSA with RRA to provide transitional diagnostic radiology services for an additional two-month period to bridge the anticipated gap.

This led to the development of three approaches with different timelines:

The Transitional Period Solution

- RRA received a retention bonus for the continuation of diagnostic radiology coverage services during the two-month transition period. Half of the retention bonus was paid in bi-weekly installments during this two-month period and the other half was paid at the conclusion of the two-month transition period if RRA satisfactorily provided coverage – which included interpretations from 8:00 AM to 11:00 PM, seven days per week, and unrestricted on-call radiology interpretation coverage in the event of defined special circumstances (e.g., emergency fluoroscopy).
- RRA continued to bill and collect for its professional services and retained all professional collections generated.

The Mid-Term Solution

- RRA provided day-time coverage Monday through Friday while Northeast contracted with the teleradiology firm to provide coverage evenings, nights, and on weekends.
- RRA provided unrestricted call coverage for the relatively infrequent special circumstances outlined in the transitional PSA arrangement.

The Long-Term Solution

- Greater reliance on national teleradiology firms and direct employment.
- Employment will help to satisfy daytime and unrestricted call coverage requirements. However, it will take time to recruit an adequate number of employed physicians as well as the radiology leadership needed to make this long-term solution viable.
- National remote teleradiology will provide coverage on evenings, nights, and weekends.

In the meantime, Northeast finds itself in an uneasy situation and is working towards a viable long-term solution in the event RRA is no longer sustainable as a private practice partner.

Case Study #3: Radiology Compensation Model within a Safety Net Hospital

Lastly, a Safety Net Hospital (West) located on the West Coast faced unique radiology staffing challenges due to its location and desirable living conditions. West is a 4-hospital health system whose flagship hospital is a 500-bed Level 1 trauma center – the only trauma center in the region. The organization also operates three smaller hospitals in surrounding communities.

Several years ago, West began employing its radiologists to address financial issues that threatened the sustainability of the group as an independent practice. West's diagnostic radiology volume would indicate a full staffing level of 25 FTEs is needed.

However, West operates in a region that is unique due to its popularity with teleradiologists who live in the region but perform overnight reads for East Coast clients to take advantage of the time differential. Therefore, West had experienced difficulty recruiting and retaining diagnostic radiologists who view direct employment as less attractive due to more onsite and on-call requirements, unpredictable work schedules, and less elective work.

After several years of high attrition, West found itself in with only five remaining employed diagnostic radiologists. These five were supported by both interventional and breast radiologists who were pressed into general diagnostic radiology service to keep up with the growing demand. Out of necessity, the remaining five diagnostic radiologists were forced to operate at extremely high productivity levels and were producing wRVUs at twice the 90th percentile level nationally. After a number of failed recruitments and in the face of potentially dire consequences such as the diversion of ER cases to local competitors, losing cancer accreditation, and legal challenges due to delayed diagnoses, leadership quickly negotiated a per wRVU teleradiology agreement with a national vendor for 24/7/365 interpretation coverage on an as-needed basis for up to 100% of its diagnostic radiology needs. This came at a significant cost.

West's leadership recognized that executing on its preferred long-term strategy could not be accomplished overnight. To account for this, leadership developed a short-term strategy that utilized a new compensation plan for employed physicians that was locally competitive. It also needed to support the recruitment and retention of high performers. West's employed compensation plan set base salaries at the 75th percentile for new recruits and included a 'hardship' retention bonus of $150,000 annually for physicians producing at or above the 80th percentile RVU productivity level. When added to base salary, this resulted in TCC at the 90th percentile nationally. Leadership pitched the 'hardship' retention bonus as a temporary measure that will be in place only until enough new diagnostic radiologists can be recruited and productivity expectations return back to a normative market level. West's recruitment success to the new employed compensation model is still undetermined.

Due to the significant cost associated with the national teleradiology firm coverage arrangement, leadership viewed it as a temporary backstop while it developed and executed a longer-term radiology workforce strategy. The strategy called for rebuilding the employed diagnostic radiology group over time by emphasizing work-life balance and avoiding excessive productivity.

Knowing this would take several years to execute, the organization's mid-term strategy included:

- Protecting interventional radiologists from being utilized in diagnostic radiology roles by securing the services of the national teleradiology firm.
- Developing a decentralized diagnostic radiology team through:
  - Establishing a local hybrid model of both onsite and remote diagnostic radiology work
  - Employing teleradiologists on the East Coast to take advantage of the time zone differential
- Utilizing the national teleradiology contract during high-demand periods, as necessary for specialty needs, and to perform off-hours reads.

What's Next?

While the responses undertaken by these three health systems are instructive, they are also reactionary – which often leads to higher costs and potential compromises in care delivery. Given the current environment, it's important that health systems take proactive steps now to avoid potential crisis situations.

Those steps include:

- Reviewing current radiology coverage arrangements to understand notice provisions and identify potential vulnerabilities inherent in relationships with independent groups.
- Maintaining communication with radiology partners to ensure that current PSAs are meeting the needs of both parties. If not, be proactive in understanding what needs to change.
- Consider alternative compensation models as opposed to defaulting to standard coverage agreement terms. Radiology groups are currently running lean by doing more with less providers and want to be rewarded for improving efficiency and productivity.
- Monitoring the ongoing radiology market to ensure compensation plans and workload expectations for employed radiologists remain market competitive. Employed coverage models are still susceptible to market forces and, even with even a modest amount of attrition, can quickly spiral into larger problems.
- Executing an overflow coverage contract with a teleradiology firm to maintain diagnostic radiology service levels if attrition of employed radiologists gets too high.
- Protecting interventional radiologists may be necessary to avoid a secondary crisis where interventional radiology coverage is threatened due to diagnostic radiology demands.
- Maintaining employment settings and expectations that are attractive to candidates in the face of teleradiology options – which offer recruits more control over their schedule, work from home, and no on-call responsibilities. Health systems should consider how their work settings can be made more attractive to potential candidates. Subspecialty focus, mentorship, and group collegiality are all strategies that can be used to maintain employment as an option for long-term success and stability.

Conclusion

The field of diagnostic radiology is at a critical juncture as organizations face a shortage of imaging professionals. This issue is simultaneously being exacerbated by an aging workforce, evolving technological demands, and increasing patient care needs. To address these staffing challenges, health care organizations are utilizing a number of diverse strategies – including renegotiating partnerships with independent groups, securing national teleradiology firm coverage, and developing internal teleradiology coverage.

It is essential to adopt flexible and forward-thinking staffing models that incorporate both technological advancements and innovative compensation structures as health systems navigate unprecedented workforce challenges. By fostering collaboration, embracing alternative coverage solutions, and prioritizing competitive retention and recruitment strategies, health care organizations can better position themselves to meet the rising demand for diagnostic imaging services and ensure sustainable, high-quality patient care in the years to come.