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The Rationale Behind and Impact of One Hospital's Provision of Secondary School Athletic Training Services: A Five-Year Case Study

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Abstract

Purpose: Sports-related injuries are common and often require physician or hospital care. Since the advent of concussion laws in fifty states, hospitals across the country have come forward to partner with secondary schools in the provision of sports medicine healthcare. The outreach agreements are consistent: Hospitals hire athletic trainers (ATs) and then outsource them to schools. ATs help mitigate risk in sports programs. Onsite at the schools daily, ATs provide immediate evaluation and treatment for injuries that occur and render decisions regarding the appropriateness of an injured athlete's return to participation. The goal of this case study was to describe the experiences of one hospital in relation to (a) the factors that contributed to its administration's decision to provide athletic training services to area schools, (b) the program structure, (c) the annual costs, and (d) the benefits reaped. **Methods:** This investigation spanned the course of the first five years of the hospital's partnership with four separate high schools. Interviews with key hospital and school district administrators along with additional tracking of the number of professional medical referrals helped to illuminate the program's successes. **Results:** The partnership proved to be a win-win. It strengthened the hospital's community relations, provided area school sports programs with much-needed medical oversight, and provided a consistent stream of revenue generation via professional medical referrals, both for the hospital and for its affiliated providers. **Conclusion:** Hospital administrators should look to this example as one that supports the decision to partner with local schools in the provision of athletic healthcare.

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ABSTRACT

Purpose: Sports-related injuries are common and often require physician or hospital care. Since the advent of concussion laws in fifty states, hospitals across the country have come forward to partner with secondary schools in the provision of sports medicine healthcare. The outreach agreements are consistent: Hospitals hire athletic trainers (ATs) and then outsource them to schools. ATs help mitigate risk in sports programs. Onsite at the schools daily, ATs provide immediate evaluation and treatment for injuries that occur and render decisions regarding the appropriateness of an injured athlete's return to participation. The goal of this case study was to describe the experiences of one hospital in relation to (a) the factors that contributed to its administration's decision to provide athletic training services to area schools, (b) the program structure, (c) the annual costs, and (d) the benefits reaped. **Methods:** This investigation spanned the course of the first five years of the hospital's partnership with four separate high schools. Interviews with key hospital and school district administrators along with additional tracking of the number of professional medical referrals helped to illuminate the program's successes. **Results:** The partnership proved to be a win-win. It strengthened the hospital's community relations, provided area school sports programs with much-needed medical oversight, and provided a consistent stream of revenue generation via professional medical referrals, both for the hospital and for its affiliated providers. **Conclusion:** Hospital administrators should look to this example as one that supports the decision to partner with local schools in the provision of athletic healthcare.

Keywords: athletic training, sports medicine, concussion, high school sports, hospital, administration, sport safety

INTRODUCTION

According to the National Federation of High Schools, nearly eight million children participated in high school sports programs in the United States during the 2018-19 school year.¹ During that same year, an estimated 1.3 million sports-related injuries (SRI) occurred to these athletes.² Many of the injuries sustained necessitated physician or hospital care.³ From 2010 to 2016, approximately 2.7 million emergency department (ED) visits in the United States were made by patients aged 5 to 24 hurt while participating in sport.⁴

Mild traumatic brain injuries (mTBI), which include sport-related concussions (SRCs), are especially concerning. While the diagnoses of and treatment protocols for most SRIs are fairly straightforward, the diagnosis of concussion is particularly challenging and complicated by preexisting, coexisting, and/or resulting biopsychosocial factors.⁵⁻⁶ Concussion laws passed in all 50 states require schools to provide immediate concussion evaluation, diagnosis, and (eventual) return to participation clearance.⁷ This responsibility often falls onto a physician but not always. In fact, most patients diagnosed with a SRC (somewhere between 500,000 to 1.3 million), were not seen in a traditional healthcare setting (e.g., hospital, ED, or outpatient clinic).⁸ Instead, athletic trainers (ATs) onsite at sporting events were often called upon to conduct the evaluation and make the determination.^{6,9-10}

The value of athletic trainers (ATs) in helping to identify and treat all types of SRI, especially those occurring in high school-sponsored sport programs, has been well-documented.^{9,11-15} The scope of practice for ATs varies from state to state, but in general, ATs are educated in six domains: (1) injury prevention, (2) clinical evaluation and diagnosis, (3) immediate and emergency care, (4) treatment, rehabilitation, and reconditioning, (5) organization and administration, and (6) professional responsibility. In all but California, the practice of athletic training is regulated by licensure, by registration, and/or by national board certification.¹⁶

Given the inherent risks, it might seem logical that schools that sponsor sports would hire ATs. However, there are barriers. Examples include budgetary constraints, school and community size, and a lack of awareness about the role of ATs.¹⁷ Misconceptions about the medical qualifications of ATs and the scope of other healthcare providers who may already be onsite (such as EMTs) can also present challenges.¹⁸ A reported 70% of public schools and 58% of private schools had some access to AT services; however, only 37% had access to a full-time AT.¹⁴ Secondary schools without consistent athletic training services relied on minimally trained coaches and sport administrators to identify and evaluate sport related injuries and determine appropriate medical treatment.^{14,18-19}

To address safety shortfalls, school district (SDs) and athletic directors (ADs) across the country are approaching area hospitals hoping to secure athletic training services. When hospitals agree, they hire ATs and outsource them to the schools. Some school districts get their ATs without cost while others pay a fraction of what it would have cost to hire the ATs outright.²⁰ In exchange for the service, the hospitals score with exclusive medical marketing rights at the schools. Perhaps more importantly, they get showered with medical referrals.^{18,20}

Purpose of the Study

While others have discussed why hospitals get involved with providing AT services to schools, there is a lack of empirical evidence to date directed toward the impact of such decisions. Thus, the purpose of this descriptive case study was to explore the rationale behind and impact of one hospital's provision of free full-time athletic training services to multiple schools within their service area. Guided by the constructs, the following questions provided focus for this study:

1. What factors contributed to the hospital's decision to provide AT services to area schools?
2. What is the structure of the program?
3. What are the hospital's annual costs to fund the program?
4. What have been the program's benefits?

METHODS

This study followed a descriptive case study approach relying on mixed methodologies. Case studies are defined as an "intensive, holistic" approach to research that provides an "in-depth understanding of a single unit or bounded system."^{21(p210)} This approach has been shown to be an appropriate framework to use when attempting to describe an intervention or phenomenon and the real-life context in which it occurred.²²

Participants

As is standard with most case study research, sampling was purposive.²² This study was concentrated on one hospital (herein referred to as Community Medical Center, or CMC) which provided full-time athletic training services to four separate high schools within its service area. CMC was the largest of two hospitals in its service area. Subjects interviewed for this study were CMC's Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Marketing Officer (CMO) and its athletic training Program

Director (PD). Administrators at participating schools (SD superintendent, school principals and school ADs) were also interviewed along with four of CMC's ATs.

Procedures

A semi-structured interview was administered in person with each of the participants. This was the preferred method of data collection because "the order of the questions can vary, additional exploratory questions can be inserted, and the pace of the interview can be adjusted depending on the responses provided by the participant."^{23(p108)} Interviews lasted between 10-60 minutes and were audio recorded, transcribed, and returned to each participant for validation purposes.²⁴ Questions directed toward hospital administrators (CEO, CFO, PD) focused on the factors that contributed to their decision to provide AT services to schools, the costs involved in the athletic training program (ATP), and benefits derived. Questions directed toward SD leaders centered on the factors that led to the hospital partnership and the ATP's overall impact. Questions directed toward the ATs focused on workload responsibilities, perceived perception of the service by coaches, parents, and athletes, and employer expectations. Additionally, ATs were asked to track the number of patient care contacts (PCCs), the number of diagnosed concussions, and the number and type of professional medical referrals (PMRs) for the first five years of the program.

Data Analysis

A process of open coding helped to reduce the amount of data acquired through the interviews.²⁵⁻²⁶ The goal was to sift through the dozens of pages of raw data obtained and condense it into manageable chunks of useful information. The open coding process was followed by axial coding. This helped to investigate the relationships that existed amongst the a priori concepts and categories.²⁶⁻²⁸ Interview responses were grouped according to their applicability to the constructs of the study: (a) the factors that prompted the initiation of the ATP, (b) program traits, (c) costs, and (d) benefits. Interviewing both hospital/school administrators and athletic trainers and reviewing contracts helped to triangulate the data. Separately, the program's patient referral data were analyzed using basic descriptive measures.

RESULTS

Program Initiation

CMC created its ATP five years after the SD eliminated its own AT services. Three of the four sponsored schools had previously employed ATs, but two factors influenced the SD's decision to eliminate the services: (a) the departure or retirement of existing ATs, and (b) budget shortfalls caused by a recession. The SD's ATs were also certified teachers who had taught for the SD full-time. By also working as an AT, they received a minimal extracurricular stipend comparable to those provided to sport coaches (\$3,000 to \$10,000 per year). When the previous ATs retired or resigned, finding replacements who were certified both as a teacher and AT was challenging. Around the same time, the state's legislature tied educational funding to student performance on standardized tests. Rather than continue the hunt for ATs, SD administrators opted to hire teachers but redistribute the money previously designated for ATs (\$53,000) to assist with core subject area instruction.

Over the next several years, the lack of ATs on the sidelines was noticeable. Coaches reported being both uncomfortable with and overburdened by the additional duties related to athletic healthcare. Parents were also upset their kids were no longer being cared for. It became clear to ADs that ATs were an essential component of the overall high school sports program. When the state passed its three-prong concussion law, SD administrators were "almost desperate" (AD-2). The law required (a) mandatory concussion education for all coaches, parents, and athletes, (b) immediate removal from play (practice or game) of any athlete who exhibited the signs, symptoms, or behaviors of concussion, and (c) written clearance from a licensed healthcare provider before the athlete could return to any type of sports participation. SD administrators felt the risk of being out of compliance with state law heightened the risk of potential negligence-related lawsuits.

Following the guidance and recommendations of one of the SD's former ATs (AT-1), CMC, who had been sponsoring various community-based sporting events (youth football, soccer tournaments, motocross races) for twenty-five years, stepped forward and offered to gift the SD with full-time AT services. CMC also extended the offer to a neighboring SD. Ownership of CMC is divided among three entities: a for-profit corporation (majority owner), physicians, and a private, not-for-profit foundation (minority owner). CMC had not previously employed ATs, so they leaned heavily on AT-1 to design the ATP. This including writing AT job descriptions and determining how other hospital staff could be involved. Hospital administrators later hired AT-1 full-time as the PD.

CMC elected to only provide services to the four high schools within its primary service area. The CFO said he "struggled" with that decision because he understood the need to be much more widespread. The PD added,

For us it has always been more about quality than quantity. There are other hospitals that go out and do this type of program and try to partner up with as many high schools as they can, but then they only put one athletic trainer in charge of overseeing three, four, five or more schools. It's kind of like notches on the bedpost. We don't want to be like that. We want our services to matter.

Program Traits

Offering the AT services while staying in compliance with Stark Law was "complicated." Stark Law defines referrals to include specific types of designated health services such as lab testing, hospital services, prescription drugs, and durable medical equipment.²⁹ The Anti-Kickback Statute generally prohibits anything of value being exchanged to induce or reward medical referrals.³⁰ Because of this, CMC's legal team was intimately involved with the design of the program and has remained involved since.

The ATP employed eight full-time ATs, including the PD. All of CMC's ATs had, at minimum, master's degrees, had passed national athletic training Board of Certification exams, and maintained national certification and state licensure. The ATP was initially designed with one AT allocated to each school, but by year two it was clear that the number of athletes at each school and the resulting workload necessitated more. The ATs worked daily at their schools (five-to-six days a week for 36 weeks) and provided medical oversight of all sports practices and games (16 sanctioned male/female sports spread across three sports seasons plus cheer and dance). During summer months when school was not in session, ATs worked sports camps, club and community sports, completed baseline concussion testing, managed off-season injury education and prevention programs, and trained coaches and officials on basic sports safety measures (including first aid and CPR). A key component of the ATP was education. The PD said his program's foundation was built on teaching coaches and athletes how to stay safe, and how to properly address injuries when they inevitably occurred.

Onsite, ATs were on the front lines for the provision of athletic healthcare. Their scope of practice was defined both by the educational competencies and by state licensure laws. Working under the written direction of a team physician, ATs were responsible for the prevention, examination, diagnosis, treatment, and rehabilitation of emergent, acute, or chronic injuries and medical conditions. Regular record keeping was expected.

CMC encouraged voluntary involvement from its physician providers. The CFO reiterated, "Clearly the only way this program works is if the providers and affiliates have an interest to support it." Two sports medicine-trained physicians (one orthopedic surgeon and one family practice physician) served as the ATP's medical directors. At least one additional family practice or ED physician and one orthopedic surgeon were assigned as "team physicians" at each school. "Our hospital is really proud of this program and proud of our community," the CEO explained, "and so a lot of our staff has embraced it and want to be a part of it." That included not only the physicians but also physician assistants, physical therapists, and nurses who regularly volunteered their services outside of normal work hours. The PD concluded,

It's really important to us that we work as a team. We stress that our program is about comprehensive healthcare. Our athletic trainers are embedded in the schools, but they are only one part of the program. Our ATs are really respected among the health care community, and that's because they work so closely with so many other healthcare providers. Our athletic trainers essentially have the entire hospital at their disposal.

Costs

The PD reported the ATP's annual budget to be just under \$685,000 with salaries and benefits accounting for approximately 90% of overall costs. Annual salaries for ATs started at \$38,500 and increased with experience and work performance. The PD, who served in an administrative role rather than as a provider, earned approximately \$85,000. The PD and ATs were each provided with a competitive benefits package (health/dental/vision plus 401K) consistent with what other CMC staff received.

Each SD provided athletic training room space adjacent to its athletic venues to facilitate AT services. Private office space for the ATs was also dedicated. CMC and its foundation partnered to provide approximately \$350,000 for startup equipment. A truck and three trailers (which were used as mobile AT rooms) were purchased along with three utility terrain vehicles (UTVs) used for field transport of equipment, staff, and non-emergent patients. Each AT room was also stocked with other essentials including taping and treatment tables, therapeutic whirlpools, AEDs, computer tablets (for documentation purposes), ice machines, ultrasound/electrical stimulation units, intermittent cold compression devices (with extremity sleeves), hydrocollators, and other rehabilitation aids (e.g., resistance bands, balls, weights). Annually, about \$24,000 funded consumable supplies like athletic tape, bandages, braces, electrodes, splints, and other basic first aid essentials. An additional \$5,000 went towards contracted services (cleaning), \$2,500 for repairs and maintenance, \$12,000 for utilities (internet, phones, printing), and \$17,000 for other operating

expenses (fuel costs, staff professional development, injury documentation and concussion testing licenses, branded staff apparel). Equipment is inspected and maintained annually by CMC staff and additional allocations are provided to the ATP if equipment needs to be replaced or if new equipment is warranted. Asked about the expansiveness of his program's budget, the PD responded,

We do not just put a person with a little bag of band aids and [athletic] tape in a school. We provide a full-service athletic training center in each of the buildings we are in so we have a high level of sports medicine care that can be provided to our athletes.

Benefits

Medical Referrals

Over the five-year period, the ATs provided direct patient care over 62,500 times. The ATs reported caring for most of the injuries themselves, but they did refer more complex cases to clinic-based, physician providers or to the ED. All referral care was billed out. The PD stressed he and his ATs were not under any pressure to "railroad" patients back to CMC. He explained how relationships among the ATs and their constituents were cultivated on trust and visibility. If an athlete was injured and additional medical care (e.g., x-rays, surgery) was needed, parents "always" decided who their child would see next. The CEO, CFO and PD all said their hope was for AT-parent-athlete relationships to be so strong that parents would choose CMC or one of its providers. As hoped, the number of referrals (2,422) was substantial. Table 1 shows the number of PCCs, PMRs, and surgeries for the first five years of the program. Table 2 itemizes the PMRs by specialty.

Table 1: AT Patient Contacts, PMRs, and Surgeries^a

Year	Number of Athletes on Team Rosters*	Number of AT Patient Care Contacts (PCCs)	Number of Diagnosed Concussions	Professional Medical Referrals (PMRs) ^b	Number of Surgeries
Year 1	2,370	9,410	137	565	45
Year 2	2,160	10,845	133	410	32
Year 3	2,137	12,695	126	543	43
Year 4	2,296	14,500	135	528	35
Year 5 ^c	2,146	15,115	85	376	28
Total	11,109	62,565	616	2,422	183

^a All professional medical referrals followed parent preference of provider. When parents did not have a preference, a CMC-affiliate was recommended.

^b Only initial PMRs were counted. Follow-up visits to each provider were not tracked.

^c During Year 5, all spring sports were cancelled due to the onset of the COVID-19 pandemic.

Table 2: Professional Medical Referrals – by Provider Type^a

Specialized Provider	Year 1	Year 2	Year 3	Year 4	Year 5 ^b	Total
Hospital ED	46	33	49	27	18	173
Hospital inpatient (admitted)	1	2	2	2	1	8
Urgent care facility	95	78	89	100	61	423
Orthopedic physician/surgeon	170	138	181	151	102	742
Family practice physician	33	25	21	38	40	157
Pediatrician	39	19	23	15	15	111
Hospital specialist (neurology, cardiology, internal medicine)	16	5	14	11	17	63
Other specialist (EENT, dental, psych, etc.)	15	7	11	18	11	62
Physical therapist	84	57	59	79	52	331
Chiropractic physician	18	18	43	45	31	155
Patients lost to competing hospital/physician provider	48	28	51	42	28	197

Total	565	410	543	528	376	2,422
^a Only initial PMRs were counted. Follow-up visits to each provider were not tracked.						
^b During Year 5, all spring sports were cancelled due to the onset of the COVID-19 pandemic.						

Being “a good community partner”

Medical referrals were a noted benefit, but CMC’s CFO suggested those referrals were secondary to his hospital’s “desire to be a good community partner.” As the sole community medical center, the CFO felt his hospital was already going to get “the majority of the referrals,” but he secondarily hoped to eliminate some of the “leakage” to CMC’s direct competitor. Both the CEO and CFO noted the ATP has helped reinforce their hospital’s brand and has strengthened the public’s understanding of how active their hospital was in its community.

As the years progressed, the ATs regular presence became rooted into the daily school lexicon. The level of trust between the ATs, coaches, parents, and athletes also increased. AD3 stressed the social importance of the ATP:

We have kids at our school that don’t have any other access to healthcare. They are too poor. Some come from broken homes. We even have kids that are homeless. For them, the [athletic] trainers are everything. Our [athletic] trainer even bought football cleats and basketball shoes for kids out of her own pocket. She really cares about them.

CMC administrators certainly understood the future implications of the partnership. The CEO summarized, “If people are happy with what we do [at the schools], the chances are good they will keep coming back to us even after their high school sports careers are over.”

Safer Sports Programs

From the SD administrators’ standpoints, the ATs filled a void. Each acknowledged an inability to hire ATs on their own and cited a safety void that existed when ATs were not present. The ATs in this study collectively diagnosed and cared for an average of 123 concussions each year that occurred to athletes in their schools, too. Their daily availability and expertise were said to be “invaluable” to the schools’ quest to comply with the state’s concussion law. Implementation of injury prevention programs, immediate injury evaluation and care, quicker injury recovery times (a result of daily rehabilitative care rendered), and improved comfort levels for parents were also all cited by school administrators as positive outcomes. The PD also noted the presence of ATs gave parents “peace of mind.”

Patient Cost Savings

The PD and ADs acknowledged the presence of the ATs in the schools saved parents a considerable amount of money. Across the United States, AT services (e.g., taping, treatments, rehabilitation) in schools have traditionally been provided free-of-charge. This was the case with CMC’s ATP. The PD summarized, “without the athletic trainers, parents would have had to take their kids to a doctor, even for things like a simple ankle sprain or a concussion. ATs know how to manage those types of injuries.” Across the country, there has been significant movement to secure ATs with third-party revenue reimbursement.³¹ CMC’s philosophy subscribed to the provision of free services, but even if it had not, CMC’s ATs would have been ineligible for fee reimbursement in their home state.

DISCUSSION

The National Athletic Trainers’ Association published a *Secondary Schools Value Model (SSVM)* for its members looking to demonstrate the value of high school-based AT services.³² Among other things, the SSVM demonstrates ways ATs can justify the cost of their programs/salaries, mitigate liability risk to schools, and prove the effectiveness of AT interventions. Using some of the guidance of the SSVM, we were able to trace the effectiveness of CMC’s ATP.

Athletic trainers have been shown to help mitigate risk in sports programs because they can (a) assist coaches and athletic administrators in identifying areas of risk and implementing measures related to athlete safety, (b) provide immediate response if a life-threatening situation arises, (c) provide immediate evaluation and treatment for injuries that occur as a result of sport participation, and (d) render decisions regarding the appropriateness of an athlete’s safe return to participation following injury.³³ Still, ADs’ ability to hire ATs has been hampered by a lack of financial resources and by the decisions of school boards and district administrators.¹⁸ CMC found a way to improve the standard of healthcare in its community’s secondary school sports programs without burdening the schools.

Tracking patient care contacts helped trace the overall effectiveness of CMC's ATP. Tracking professional medical referrals helped to illuminate a fiscal value. Unlike CMC's model, some hospital-based athletic training models seem focused more on broad-brush marketing than on providing consistent healthcare. In Montana, for example, a single AT reported traveling more than 2,500 miles a month while rendering athletic healthcare at eight different high schools. Sometimes, ATs there only see injured athletes once every two weeks.³⁴ Similar models have ATs splitting time between a clinic setting (e.g., physical therapy clinic or orthopedic practice) and one or more schools. Often, ATs in these types of models provide only game day coverage. From a healthcare standpoint, transient models like those are not ideal as the continuum of care is interrupted. It has also been suggested that the "effectiveness of ATs who are not full-time . . . may be limited."^(35,p71)

Inpatient admissions of sports-related injured patients are rare,¹⁰ but outpatient and clinic-based services (including surgeries) can be cash cows. While CMC's administrators all insisted the purpose of their ATP was not to generate referrals, the resulting referral data were hard to overlook. Athletes are susceptible to a myriad of injury risks including concussion, cardiac emergencies and environmental (e.g., heat related) illnesses, but musculoskeletal injuries are, by far, the most common.^{2,8,36-37} Nationally, high school athletes account for a reported 500,000 doctor visits each year.³⁸ Improved imaging methods, including ultrasound and magnetic resonance imaging (MRI), produce a "vastly superior visualization of tendons, ligaments, and cartilage" and play "an increasingly pivotal role" in the diagnosis and treatment of many musculoskeletal injuries.^{39(para2)} So, when an athlete presents with a SRI, there is a higher-than-normal likelihood that imaging will be ordered.^{4,40} Conventional neuroimaging, including head computed tomography (CT) scans and traditional MRI, is relatively insensitive to concussion pathophysiology, however it is often ordered in an attempt to rule out other types of traumatic brain injury.^{4,41}

CMC's ATs reported a high number of PCCs and PMRs. In fact, about 70 athletes (on average) visited CMC's athletic training rooms daily for injury-related care. ATs generated an average of 484 PMRs per year, and injured athletes at CMC's schools accounted for 37 surgical cases each year. This study was delimited to the number of initial PMRs, so most likely the actual number of billed office visits (when including follow-up visits) was far greater. Patient billings were also not tracked. Thus, we cannot determine the exact impact on CMC's revenue streams. We can, however, speculate by assigning dollar values based on industry standards.³² To operate the ATP, CMC's cost was just over \$85,600 per AT. Based on the PMR data presented in Table 2 and the general billing amounts attributed to treating common SRIs at CMC and at one of its orthopedic providers (Table 3), we can assume CMC's return on investment was markedly greater than the amount allocated to fund the program.

Table 3: General Patient Costs, 2020-2021^a

Procedure	CPT Code	Patient Costs (facility) ^b	Patient Costs (non-facility) ^c
Physician office visit (outpatient)	99203	--	\$210.00
ED visit	99281	\$440.39	--
X-Ray - ankle	73610	\$712.00	\$125.00
MRI – knee (without and with contrast)	73723	\$8,416.82	--
CT scan – head or brain (without contrast)	70450	\$1,570.00	--
Diagnostic US – upper extremity (complete)	76881	\$838.55	\$282.00
Surgery – arthroscopic ACL reconstruction	29888	\$54,938.21	--
Surgeon – arthroscopic ACL reconstruction	29888	--	\$4,716.00
Surgery – arthroscopic knee meniscectomy	29881	\$20,133.22	--
Surgeon – arthroscopic knee meniscectomy	29881	--	\$2,689.00
Surgery - arthroscopic shoulder capsulorrhaphy	29806	\$47,720.86	--
Surgeon - arthroscopic shoulder capsulorrhaphy	29806	--	\$4,375.00

^a Patient costs are not specific to athletes or athletic injuries.

^b Fees shown are based on the median amount billed to patients/patient insurance. Surgical fees vary according to the time in the operating room/recovery, physician preference of supplies and equipment, and any complications that may arise. Surgery costs exclude anesthesia, physician/surgeon and assistant costs.

^c Fees shown are standard amounts billed to patients/patient insurance by one affiliate provider.

The results presented here cannot prove/disprove an effect on leakage. But the data did show just 8% of PMRs went to CMC's direct competitor. It is certainly possible, as the CFO suggested, injured athletes would go to CMC regardless of the ATP since it was the community's largest healthcare provider. Strong relationships cultivated between CMC's ATs and parents/athletes no doubt strengthened that likelihood. The PD and ATs believed this to be true, and so did the ADs.

CONCLUSIONS AND RECOMMENDATIONS

Many cash-strapped SDs are focused on finding ways to hire ATs to serve their school-sponsored sport programs. This study highlights one way to do that through the solicitation of an external partner. This particular study focused on the outcomes of the partnership from one hospital's perspective. For the first five years, CMC's provision of ATs to its area schools was good for business. It strengthened the hospital's brand and community relations, provided area school sports programs with much needed medical oversight, and provided a consistent and sizeable stream of revenue generation, both for the hospital (via ED, surgical and inpatient admissions) and for its affiliated providers. It also saved parents money. CMC thoroughly vetted its ATP, including all SD contracts, with its legal team to ensure there were no Stark Law²⁹ violations (including kickbacks). Other hospitals looking to establish a similar program are advised to do the same.

Further study is warranted, especially as it relates to patient cost savings, patient billings, and the influence the program may have had on customer choice. However, evidence presented here indicates that CMC's program was successful. There seemed to be total buy in from all constituencies: hospital staff, school administrators, coaches, parents, and athletes. To procure maximal return on investment, hospitals who consider partnering with schools are similarly encouraged to dedicate full-time services to ensure a continuum of care and to maximize the strength of relationships built. Building brand awareness is important as are community relations. Strategically constructed programs like this can embed healthcare providers into the high school sports program in an effort to make those settings safer. It has been reported that 70% of people will experience SRI at some time in their lives.⁴² Thus, rooting an athletic training program with an educational purpose is also encouraged.

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