

# How Soccer Explains Healthcare<sup>1</sup>: Collective Performance Defines Success

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Market Corner Commentary

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The 21<sup>st</sup> FIFA World Cup kicked off on June 14th when host Russia trounced a weak Saudi Arabian team 5-0 at 81,000-seat Luzhniki Stadium in Moscow. It equaled the most lopsided opening game in World Cup history. Excitement is now at a fever pitch as the competition moves into the knockout rounds.

Often called “the beautiful game,” soccer is an intriguing, free-flowing sport where goals are precious, mistakes can be catastrophic, and momentum builds with each successive ball touch. In soccer, teams earn 1 point for a tie and 3 points for a win.

In 2013, Chris Anderson and David Sally published *The Numbers Game: Why Everything You Know About Soccer Is Wrong*. Their book is *Moneyball* for soccer, applying “big data” analytics to discover which factors distinguish winning and losing teams.

Anderson and Sally’s research has applicability for healthcare. Using their framework, it becomes apparent that much of what we think about healthcare is also wrong. Let’s explore the parallels.

## DEFENSE MOST IMPORTANT

Goals are remarkably rare in soccer. Everyone knows that soccer is low scoring, but it is surprising how low scoring it is relative to other sports. Anderson and Sally crunched numbers from thousands of games across multiple sports to quantify that difference.

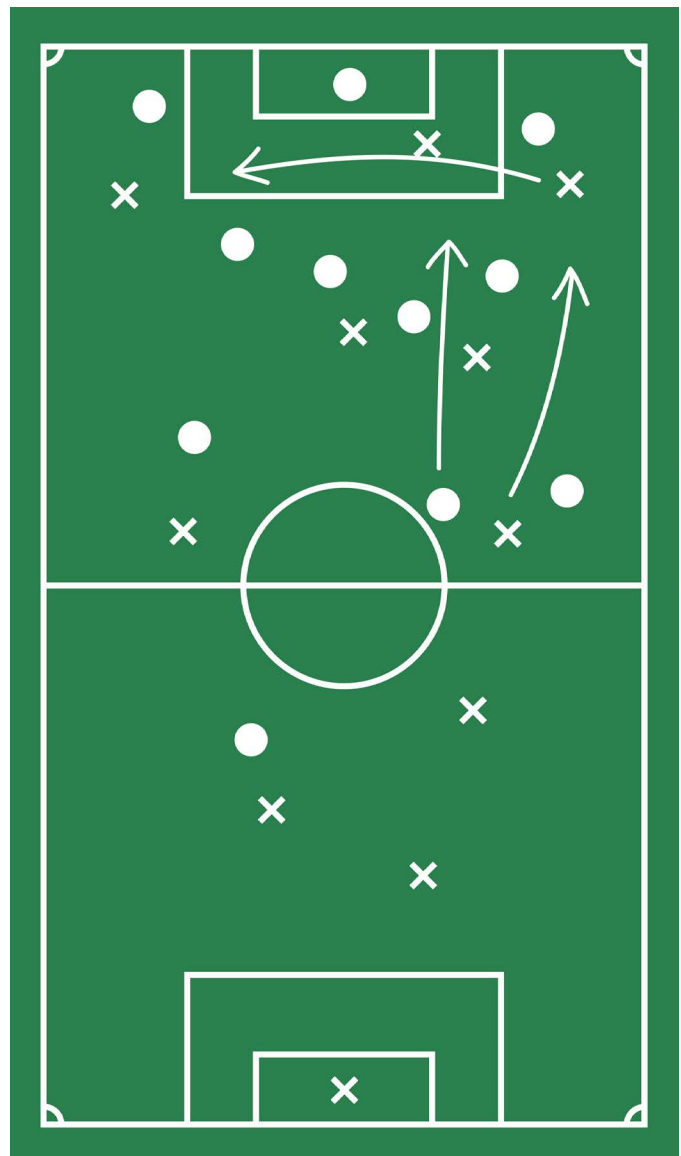
On average, soccer teams score just over 1 goal per game. Basketball, at the opposite end of the spectrum, averages almost 100 points a game. Soccer teams manage only 12 shots on goal in a typical game. That compares to 30 in hockey and 123 in basketball.

With goals so difficult to register, preventing opponents from scoring assumes paramount importance. Holding opponents to no goals (a “clean sheet”) translates into 2.5 points in professional league standings. In comparison, teams must score 3 goals and win to achieve the same 2.5 projected point total.

In a feat of analytic mastery, Anderson and Sally determined that a “prevented goal” is worth a third more than a “scored goal.” The unmistakable conclusion is that defense in soccer is more important than offense. This is also true in healthcare. Miracle cures generate wild applause, but eliminating the need for acute interventions is the best possible outcome for patients.

U.S. healthcare focuses disproportionately on offense (treating disease) even though playing better defense (preventing disease) would yield more victories. Addressing harmful social, environmental and lifestyle factors reduces the need for acute interventions. Too often American healthcare treats the byproducts of disease and not its root causes.

Living a “clean sheet” life without need for acute care treatments is a huge win for patients and less costly for society. Healthy individuals are happier, more productive and more engaged with their communities. Promoting health and preventing disease generate huge societal dividends.



## WEAK-LINK ENTERPRISES



Soccer is also a “weak-link” sport. Teams are only as good as their weakest players. Mistakes that lead to preventable goals are catastrophic. Teams that give away goals rarely recover to win games. In this sense, “first do no harm” applies as much to soccer as medicine.

By contrast, basketball is a “strong-link” sport. The best players score many points. Defensive mistakes are relatively easy to overcome. No professional basketball teams win championships without superstars. Rare talents like LeBron James and Stephen Curry are among the highest-paid athletes in sport, earning five times more than their teammates.<sup>2</sup> Even stacked teams include many average players.

Anderson and Sally’s research concludes that the best soccer teams are those with the narrowest gap between their best and worst players on the field. Teams that field above-average players at all positions beat teams that mix superstars and average players – the opposite of professional basketball teams.

Despite compelling evidence to the contrary, soccer teams often “overinvest” in superstars, particularly goal scorers, and “underinvest” in high-quality position players. They fail to appreciate that incremental “position strength” cannot overcome the risks of incremental “position weakness.” Great teams are strong at all positions.

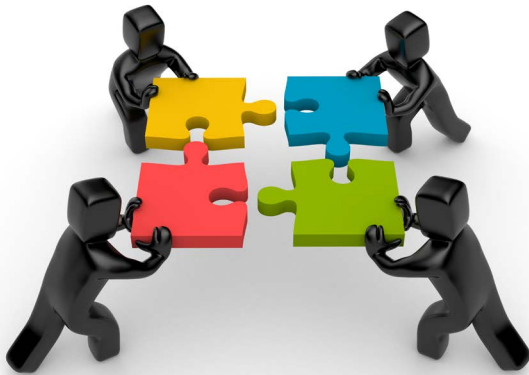
By any measure, healthcare is a weak-link enterprise. Effective preventive care, health promotion, behavioral health, and chronic disease management dramatically reduce the need for high-cost acute interventions.

Unfortunately, American healthcare “overinvests” in acute and specialty care (where stars get the spotlight and enterprises maximize reimbursement) and “underinvests” in frontline primary care (where reimbursement is low and victories come incrementally). The result is both predictable and depressing. The U.S. spends much more on healthcare than other advanced economies but achieves subpar health outcomes.

American healthcare is playing basketball when it should be playing soccer. It takes a “strong-link” approach to specialty care and neglects the “weak-link” implications of not investing in broad-based community health and wellness. Extraordinary “strong-link” medicine (e.g. heart transplants) without “weak-link” care services scores goals but loses games.

If U.S. healthcare were a Premier League soccer team, it would be relegated to the second division. Championship healthcare keeps communities healthy, prevents medical errors, and avoids unnecessary treatments while delivering appropriate acute-care services.

## COLLECTIVE PERFORMANCE DEFINES SUCCESS



Identifying goal scorers is easy. They're the players chased and mobbed by their teammates. By contrast, identifying defensive excellence is much more difficult. Baseball's statistical guru Bill James makes this point eloquently in the following passage.

*Defense is inherently harder to measure. And this is true in any sport. In any sport, the defensive statistics are more primitive than the offensive statistics. It's not just sports. It's true in life. It would be true in warfare and true in love.<sup>3</sup>*

Soccer teams must do a thousand things right to prevent the other teams from scoring goals. Players have to be in position. They have to communicate. They cannot overcommit. They have to understand their opponents' tactics. They need to know when to take calculated risks. Overall, they have to execute flawlessly within well-coordinated defensive systems.

As in soccer, healthcare teams must do a thousand things right to prevent medical errors and deliver appropriate treatments (Right care. Right time. Right Place. Right Price.) Coherent protocols, effective communications, real-time data and understanding patient preferences are essential for success.

Often frontline caregivers have to overcome burdensome legacy systems to do the right thing for patients. Technology and operating systems should make it easier, not harder, for healthcare professionals to excel.

It's always hard to prove a negative. It took centuries to learn that handwashing prevents more deaths than brilliant surgical procedures. Defensive proficiency becomes evident by measuring relative team performance over time. This is true for avoided infections, prevented surgical procedures and unnecessary diagnostic procedures.

Defensive success rests on constant, high-performing collective action. Enterprise participants coordinate, collaborate and communicate to make correct decisions in real time. This is difficult, but necessary in dynamic environments like operating rooms, trauma centers, intensive care units, ambulances, clinics and patient bedsides.

In "weak-link" enterprises, it's tempting to recognize and reward individual success. Real glory, however, belongs to cohesive teams working together within well-crafted operating systems.

## CONVERGENCE



Soccer teams cannot focus solely on offense or defense and expect to win. Championship teams play both offense and defense exceptionally well. What's true in soccer is also true in healthcare.

Healthcare must have exquisite defenses to promote wellness, minimize medical errors and avoid preventable hospital admissions. Healthcare also must have high-powered offenses (treatment capabilities) that provide vital care to sick and injured patients.

When attempting to improve outcomes within a complex system, it is natural to focus on isolated sources of underperformance. Perhaps this is why healthcare leaders are overly particulate in how they characterize solutions to healthcare's inherent fragmentation, "If only we get the EMR right, then workflow will improve and the system will transform." Or care transitions. Or the customer interface. Or care protocols. Or employee engagement. Or social determinants...



## GOALLLLLLL!!!!!!!

Legendary Liverpool coach Bill Shankly famously observed, "Some people believe football (soccer) is a matter of life and death. I assure you it's much more serious than that."

While healthcare actually is a matter of life and death, America doesn't play the game very well. There is too much fragmentation, too many errors, not enough coordination, insufficient preventive care, too much emphasis on specialty care, and far too many unnecessary deaths.

Healthcare transformation requires a new mindset, one that recognizes the following truths:

- Prevention is as important or more important than treatment;
- All components of the care continuum must be equally strong to deliver the highest quality healthcare services;
- High-performing collective effort defines successful care delivery;
- Great care capabilities must converge to meet patients' holistic needs.

Soccer legend Pele made this observation about life, "Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do."

Healthcare requires hard work, perseverance, learning, studying, sacrifice and most of all, love. With the right tactics and strategy, every health company can win.



## SOURCES

1. This commentary's title mimics the title of Franklin Foer's insightful book *How Soccer Explains the World*, which explores how social, cultural, religious and ethnic factors influence soccer team affiliations and national politics.
2. <http://www.businessinsider.com/nfl-mlb-nba-nhl-average-sports-salaries-2016-11>
3. Excerpt From: Chris Anderson. "The Numbers Game." iBooks. <https://itunes.apple.com/us/book/the-numbers-game/id614809319?mt=11>
4. <https://www.dupagemedicalgroup.com/news/dupage-medical-group-announces-investment-from-ares-management-private-equity-group/>



### David Johnson

David Johnson is the CEO of 4sight Health, a boutique healthcare advisory firm. Dave wakes up every morning trying to fix America's broken healthcare system. He is a frequent writer and speaker on market-driven healthcare reform. His expertise encompasses health policy, academic medicine, economics, statistics, behavioral finance, disruptive innovation, organizational change and complexity theory. Dave's book, **Market vs. Medicine: America's Epic Fight for Better, Affordable Healthcare**, is available for purchase on [www.4sighthealth.com](http://www.4sighthealth.com).