

IS OFFSHORE CODING REALLY SAVING YOU MONEY?

Six health systems analyze medical
record coding costs and outcomes

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Executive Overview

Healthcare providers are constantly seeking ways to reduce overhead and expenses. Common areas of scrutiny are the internal administrative functions, particularly in the revenue cycle area. Outsourcing those services for coding, transcription, release of information, and clinical documentation improvement often yields savings in payroll, overhead, and benefits. The savings look even more significant if offshore resources are considered.

As a coding services company, KIWI-TEK has followed this industry dynamic for a number of years. The consultancy used domestic coders for their services since 2004, and added offshore coders through various third parties beginning in 2012. The experience led to a greater understanding of the costs, benefits, and risks of domestic coding versus offshore coding. It also formulated an important conclusion for healthcare executives: provider organizations must consider many factors beyond the upfront cost to code, whether it is an hourly rate or a per encounter fee.

Outsourced medical record coding, already considered best practice to improve coding accuracy by 74 percent of Black Book survey participants, now presents a second question for healthcare executives: domestic coding or offshore services. To fully assess both options, a deeper analysis of coding outcomes is needed. However, there is a deficit of such data in the healthcare industry.

Revenue cycle and HIM professionals alike express common frustration in the lack of a quantifiable, comprehensive study that compares the two outsourced coding options. Having the experience and data available to perform such a study, KIWI-TEK took on the challenge and partnered with six healthcare systems to compare domestic versus offshore coding outcomes.

This white paper summarizes KIWI-TEK study findings and examines the responses received from health information management (HIM) and revenue cycle professionals. All participants managed both types of outsourced coding services companies: domestic and offshore. Key coding outcomes included in this report cover variations between the impact of domestic and offshore services on productivity, accuracy, training, denials, and more.

Three Key Takeaways for Healthcare Executives

- There are many factors to consider beyond the upfront cost to code, whether it is an hourly rate or a per encounter fee.
- Unqualified coders and resultant coding errors wreak havoc on net revenue by causing increased payer denials and recoupments.
- Organizations must prioritize coding accuracy to proactively prevent denials and protect reimbursement: think quality first, second and third.



Offshore Coding Services: A Brief History

The majority of early users of offshore coding were physician and radiology groups seeking cost savings for relatively simple and repetitive coding functions. Around 2012, healthcare executives began to look more closely at cost savings, particularly to offset the looming expense of ICD-10 preparation. Domestic coding vendors were challenged to find an international partner, and offshore coding companies began to experience an increase in demand for services.

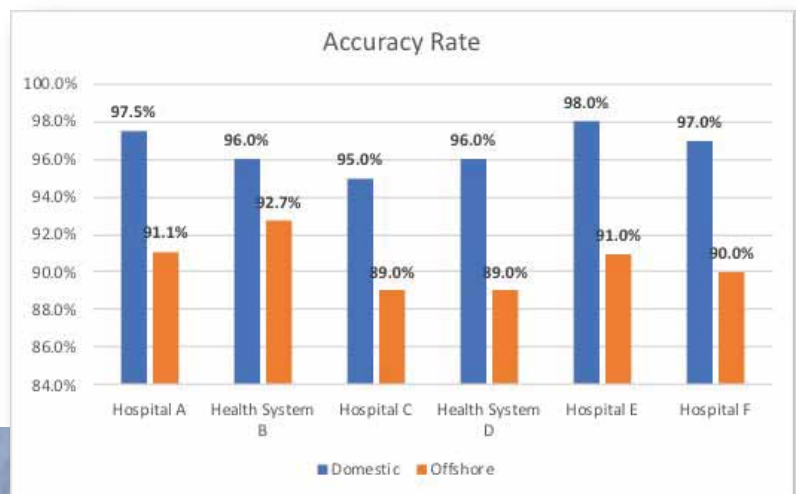
As the U.S. healthcare industry moved closer to ICD-10 implementation in 2013, and again in 2014, it became clear that reduced productivity would create a shortage of domestic coders, resulting in massive backlogs of uncoded charts. Possible revenue cycle interruptions, cash-flow concerns, and the lower cost led to an unprecedented use of offshore coding in 2015 and 2016. In addition to coding support for simple diagnostic and professional fee coding, offshore companies were charged with more complicated emergency room, ambulatory surgery, and inpatient cases.

Many medical records coding companies, including KIWI-TEK, had always recruited coders in advance of need and typically had 20 to 30 qualified and vetted coders on the bench. Due to sharply increasing demand, by January 2015, the KIWI-TEK bench was empty and the company was actively recruiting. By May 2015, there were 41 requests for coders that KIWI-TEK could not fill. Other domestic coding service companies found themselves in the same situation.

For the first time in company history, KIWI-TEK contracted with several HIM recruiting services for help. By September 2015 they had over 90 requests for coding support that could not be filled, despite utilizing coders with five different offshore companies. Due to dire need, clients had overcome misgivings about using offshore coders and were willing to accept any available resources.

Then the tide turned. In contrast to ICD-10 implementation in other countries, U.S. coder productivity—reduced by half immediately following ICD-10 implementation October 1, 2015—recovered rapidly. This was mostly due to substantial expenditures by providers to improve workflow applications and infrastructure. Also, the U.S. health information management community stepped up with an extensive advanced-training effort. By April 2016, the huge crunch for additional coding support was all but over. However, the appeal of lower coding costs was and continues to be a powerful element.

Comparing Code Accuracy: January 2015 through January 2017



The Study

Six hospitals and health systems were chosen for this study, all having experience with both domestic and offshore coders for at least one year. The same onboarding, auditing, and training procedures were applied equally to all. Productivity rates, coding accuracy rates, training times, and onboarding times were recorded. Several organizations also had reporting procedures in place to track payer denial rates. The anonymized data covers a two-year time period from January 2015 to January 2017.

Hospital A

Hospital A is a 1,059-bed teaching hospital, the system's largest hospital with annual revenue of \$2.7 billion. It is recognized locally, regionally and nationally for quality healthcare and is consistently ranked one of the nation's best hospitals.

Attribute	Domestic	Offshore
# Coders	3	3
Patient type	IP	IP
Accuracy Rate	97.5%	91.1%
Onboarding	1 week	4 weeks
Training time	1 hour	4 hours
Productivity	3 per hour	2 per hour

Health System B

Health System B is a \$3.8 billion not-for-profit healthcare organization with more than 3,300 beds serving a statewide area. Consisting of nine wholly-owned or affiliated hospitals and rehabilitation centers, health system B provides the area's only Level 1 Trauma Center in the area for adults and pediatrics, and is a statutory teaching hospital system offering both specialty and community hospitals.

Attribute	Domestic	Offshore
# Coders	2	7
Patient type	IP	IP
Accuracy Rate	96%	92.7%
Onboarding	1 week	4 weeks
Training time	1 hour	4 hours
Productivity	3 per hour	2 per hour

Hospital C

Hospital C is a 941-bed, university-based healthcare facility with annual revenue of \$5.4 billion. It has been ranked among the top programs in the U.S. News & World Report's "Americas Best Hospitals." Hospital C has also been designated as a Magnet Hospital, recognizing excellence in nursing services and high-quality clinical outcomes for patients.

Attribute	Domestic	Offshore
# Coders	4	3
Patient type	IP, SDS	IP, SDS
Accuracy Rate	95%	89%
On-Boarding	1 week	6 weeks
Training time	1 hour	5 hours
Productivity		
IP	3 per hour	2 per hour
SDS	6 per hour	5 per hour

Health System D

Health System D is a not-for-profit system including four acute-care facilities located in the southeastern United States. Annual revenue is \$1.8 billion. KIWI-TEK has served as a total outsource provider for all of the system's coding needs since 2007.

Attribute	Domestic	Offshore
# Coders		
SDS	13	2
IP	11	7
ER	7	3
Productivity		
SDS	4.9 per hour	3.5 per hour
IP	2.5 per hour	2.1 per hour
ER	9.7 per hour	5.3 per hour
Accuracy Rate	96%	89%
On-Boarding	1 week	12 weeks
Training time	1 hour	3 hours
Auditing per coder	5 hours per month	12 hours per month

Other notes:

- Offshore staff did not follow established procedures for queries and missing documentation.
- Offshore queries were inappropriate and hard to understand.
- There is a language barrier on communication with offshore.
- Onboarding time for new offshore coders was excessive (Q4 2015).
- CMI dropped from 1.9 to 1.8 during the two years offshore IP coders were used— recovered back to 1.9 in 2016.
- Total collection percentage (collections divided by billings) dropped from 25% when using 100% domestic to 21% when using offshore.

Hospital E

Hospital E is a small full-service hospital, delivering state-of-the-art emergency, acute inpatient and outpatient care with annual revenue of \$188 million. KIWI-TEK has served as a total outsource provider for all of the facility's coding needs since 2009. Coding staff was 100% domestic from 2009 to 2014. In 2014 Hospital E was converted to 100% offshore. Due to performance issues, the staff was converted back to domestic in 2016.

Attribute	Domestic	Offshore
# Coders	9	13
Accuracy Rate	98%	91%
On-Boarding	1 week	4 to 6 weeks
Training time	1 hour	5 hours
Auditing per coder	4 hours per month	15 hours per month
Turnaround time	3 days from D/C	9 days from D/C

Other notes:

- Inconsistent production from offshore led to 10 separate backlog resolution plans required by the client in 2014 and 2015.
- In 2016, after converting from offshore back to domestic, CMI increased from 1.2 to 1.3. Collection percentage increased from 81% to 82%.
- Denied claims increased from less than 20 per week with domestic coders to 150 per week with offshore.
- Offshore vendor was caught inappropriately sharing system access for their coders twice.

Hospital F

Hospital F is a 642-bed, not-for-profit tertiary care center with annual revenue of \$2 billion. The hospital serves a 17-county area in the southeastern United States with approximately 400,000 persons in the service area.

Attribute	Domestic	Offshore
# Coders	8	24
Accuracy Rate	97%	90%
Productivity IP	2.9 per hour	1.5 per hour
On-Boarding	1 week	4 to 6 weeks
Training time	1 hour	5 hours
Auditing per coder	4 hours/month	13 hours/month
Turnaround time	2 days from D/C	5 days from D/C

Other notes:

- Query rates on IP averaged 40% less for offshore.
- Third-party audit challenges averaged 61% higher for offshore.

Summary of Statistical Findings

A consistent pattern evolved when comparing domestic and offshore coding. The following eight characteristics of offshore coding emerged:

- Lower productivity of charts coded per hour per coder, requiring more FTEs to manage the patient volume
- Lower accuracy rate—requires additional feedback from management on errors, more time spent auditing to minimize errors, and more training time to minimize errors
- Higher denial rate—requires more time to rework denials
- Fewer queries on IP encounters—leads to a lower reimbursement and CMI
- Excessive onboarding time for new coders—creates issues such as managing staffing levels to accommodate changes in patient volume
- A lower CMI of .1 due to fewer queries and reduced depth of coding. This normally equates to \$4500 less reimbursement per IP encounter
- Slower turnaround time—leads to increased DNFB
- Lower collection percentage due to reduced depth of coding

Cost Summary

Productivity

Offshore coder productivity is 34% lower per hour than domestic coders. This means you would need 51% more offshore coders at \$35 per hour to accomplish the same volume of work by domestic coders at \$60 per hour. This raises the effective hourly rate of offshore to \$52.85 per hour—an increase of \$17.85 per hour.

Auditing

Offshore coders required an average of 6 more hours per coder per month of auditing due to poor accuracy results. Six hours per month at \$50 per hour equal an additional expense of \$300 per month per coder. If spread across 160 hours per month of coding, this would add \$1.87 per hour to the cost of offshore coding.

Denied Claims

Offshore coders averaged 10 more denied claims on Inpatient and Same Day Surgery (SDS) encounters per week than domestic coders. Denied claims are reworked by the management staff and then the coder is retrained on the errors. Reworking of denied claims on these patient types takes 20 minutes each to recode and 20 minutes each to retrain the coder on the errors for a total of 40 minutes each. For 10 additional claims per week, the additional management time is 400 minutes, or 6.7 hours per week, times \$50 per hour, which equals \$335 for week. This raises the cost of a 40-hour-per-week coder by \$8.38 per hour.

	<u>Domestic</u>	<u>Offshore</u>
Initial Cost	\$60/hour	\$35/hour
Productivity Impact	none	\$17.85
Increased auditing cost	none	\$1.87
Increased denied claim cost	none	\$8.38
Total cost	\$60	\$63.10

Initial training for onboarding is an additional 3 hours per coder at \$50 per hour.

Assumptions Made for Cost Comparison

Cost of coding was made by comparing cost factors on an hourly basis. The six clients in this study were charged varying rates per hour or by chart, across five different patient types, from four different offshore vendors. For purposes of this study, \$60 per hour for domestic coding and \$35 per hour for offshore coding was used.

Management fees were calculated at \$50 per hour, KIWI-TEK's actual average salary, plus benefits provided to managers, assistant managers and auditors. Management fees for domestic coding are included in the \$60 cost of coding. Management fees for offshore coding are an additional expense required by the client.

Productivity statistics are weighted by the number of coders across all clients.

Other Cost Factors

1. Where all or most of the IP coding was done by offshore coders, CMI was measured. A drop in CMI of .1 normally equates to \$4500 less reimbursement per IP encounter.
 - D dropped from 1.9 to 1.8.
 - E dropped from 1.3 to 1.2.
 - F experienced no change.
2. Each organization in this study experienced a **1% to 3%** drop in collection percentage during the use of offshore coders.

Final Summary

Based on the study results presented in this white paper, offshore coding is actually a more expensive option than domestic coding due to additional costs of rework, auditing, and lower productivity. In addition:

- Additional training and retraining are required for offshore.
- CMI is lower with offshore coding due to a lower depth of coding specificity and language barrier.
- Collection percentage is lower with offshore coding due to the same reasons.

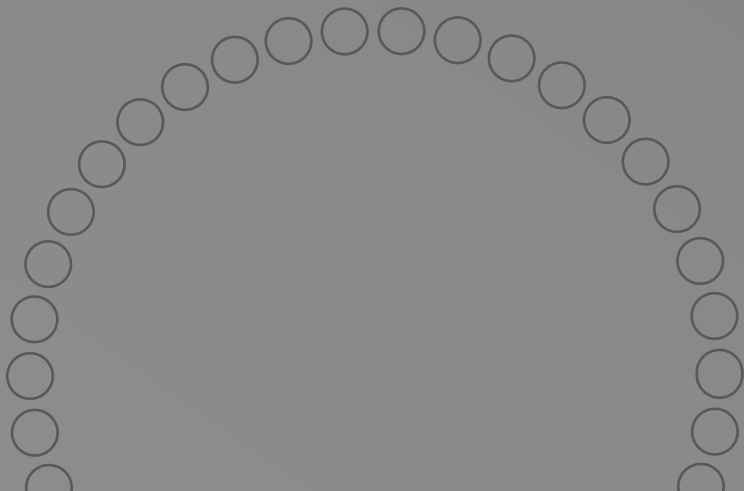
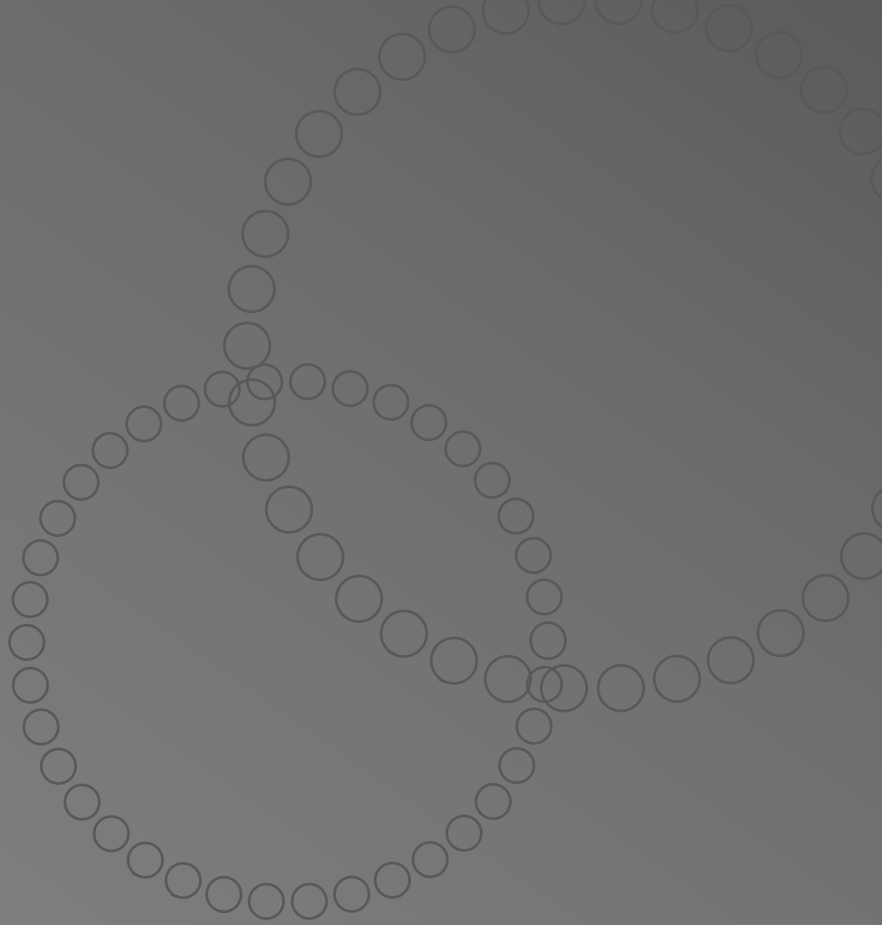
HIPAA compliance issues are numerous and complex for offshore coding companies. It is difficult to verify or ensure that:

- Physical workspace is secure
- Coders received privacy and security training
- User equipment has proper Endpoint Security and monitoring software
- Actual coder signed the Workplace Physical Safeguards Acknowledgement, HIPAA Compliance Acknowledgement, or the Business Associate Agreement

A large supply of certified, experienced domestic coders is available:

- AAPC Resume Forum—4,212 posts from coders and/or billers seeking employment
- Coders4Hire page on LinkedIn—5,645 members seeking work
- AHIMA job board—several thousand certified coders seeking work

For more information, call us at 866-709-5494 or visit www.kiwi-tek.com



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