

## Managed Care Technology:

An Untapped Resource for Operations Improvement,  
Contract Compliance and Increased Revenue



**OPERATIONAL EFFICIENCIES**

**UNDERPAYMENTS**

**BETTER CONTRACT RATES**

## Managed Care Technology

In a managed care plan, a health insurance company, managed care organization, etc. establishes contracts with health care providers in large part to reduce the costs for providing care to the managed care company's members. Because of an increased shift towards managed care arrangements (e.g. commercial and now also Medicare, Medicaid and Workers Compensation), the number of contracts that providers participate in has been rising.<sup>1</sup> In fact, a recent industry survey found that the average number of contracts is 50 for a small hospital (0-100 beds) and 79 for a large hospital (500+ beds).<sup>2</sup> These contracts significantly impact a provider's revenue and profitability. However, oversight and management of these contracts is relatively poor and therefore increased net revenue from third party payments represent an untapped reserve waiting to be extracted.

Fortunately, technology exists to better extract revenues from third party payers. Not only is the technology readily available, but it is easily accessible. Specifically, there is abundant opportunity to access increased net revenue via the deployment of technology designed to address four key managed care processes: payment variance analysis, contract modeling, contract administration and provider credentialing.

In this white paper, we examine each of these core technological needs by discussing standard and advanced features of currently available solutions, the related value proposition and an abbreviated listing of some of the leading vendors in each category.

### Four (4) Essential Managed Care Technologies

There are four crucial technologies that can be implemented to increase the realization of third party payment revenue.

- **Payment Variance Analysis:** Evaluating third party payments to determine if claims are being underpaid
- **Contract Modeling:** Measuring the financial impact of different rates and methodologies
- **Contract Administration:** Catalog, tracking, monitoring and operationalizing managed care contracts
- **Credentialing:** Collecting, reviewing and managing physician and other clinical professional qualifications

## Payment Variance Analysis

Payment variance analysis is a process whereby third party payments are analyzed to determine whether specific claims are underpaid. Most variance analysis tools analyze various payment methodologies including percent of billed charges, case rates (e.g. DRGs), per diems, groupers, carve-outs, implants and 1st dollar stop loss. Once payments are analyzed, differences in expected reimbursement and actual payment received are automatically calculated, greatly facilitating the underpayment collection process.

Some of the more advanced variance analysis technologies also include features like workflow intelligence to distribute claims to proper departments/employees, coordination of benefits for patients with multiple insurers and auto-generation of forms for underpayment appeals.

## Some estimates place underpayments at an average of 15% of expected payments across hospital systems in the U.S.

Tools that analyze payment variances can dramatically improve efficiency by tracking underpayments daily at the patient level as well payer performance over time. Healthcare providers can then focus their activities on administering claim re-submittals for individual cases as well as payment settlement negotiations with payers when there are a large volume of underpaid claims.

One of the largest vendors in this space — who has one of the largest number of installations of contract management systems in the US — estimates that their client base is underpaid, on average, by 15% of expected payments. Using some high level assumptions, in Table 1 below we demonstrate how reductions in underpayments can yield enormous benefits for healthcare providers.



Table 1. Estimated Potential Reduction in Underpays by Hospital Size

Staffed Beds	Percent Reduction in Underpays		
	<i>15% to 10%</i>	<i>15% to 5%</i>	<i>15% to 2%</i>
100	\$4.9 MM	\$9.8 MM	\$12.7 MM
500	\$24.4 MM	\$48.9 MM	\$63.5 MM
1,000	\$48.9 MM	\$97.7 MM	\$127.1 MM

$$[\text{Staffed Beds}] \times [\text{Avg Net Patient Revenue}^{\$}] \times [\text{Percentage Underpaid}]$$

There are a number of commercial off the shelf software programs that perform variance analysis, including patient accounting systems with variance analysis “modules”. Sample vendors include Concuity ClearContracts, MedAssets Contract Manager, PMMC ContractPro, Kreg Information Systems CMA, MPV Contract Management, Chart Tech Visium, McKesson PECON, and Siemens Contract Manager, to name a few.



### The Value of Contract Modeling

- ◆ Facilitate contract negotiations
- ◆ Model different payment methodologies and rates
- ◆ Predict financial impact in the aggregate, by service line and by individual procedure
- ◆ Reduce dependence on unwieldy spreadsheets with limited capabilities
- ◆ Facilitate strategic pricing initiatives

Results in a more comprehensive understanding of the effects of specific changes to the contract which can be leveraged to yield dramatic improvements in contract negotiations.

## Contract Modeling

Contract modeling is the use of technology to measure the quantitative impact of different payment rates and methodologies. When engaged in contract negotiations with third party payers, health care providers can utilize modeling to predict the financial impact of changes to reimbursement rates or payment methodologies. Standard features of contract modeling technologies include the ability to model complex contracts and rate structures against real data, model various payment methodologies (% of charge, DRGs, per diems, fee schedules, groupers, APCs, case rates, carve-outs, etc.), model other complex payment implications (payment for multiple surgeries, C.O.B. rules, 1st dollar stop-loss, implants, high cost pharmaceuticals, etc.) and the ability to model multiple years of historical data. Most contract modeling systems integrate seamlessly with patient accounting systems or practice management systems and can also import cost data in order to estimate contract profitability.

Advanced functions of contract modeling systems include the capacity to handle large data sets (e.g. model millions of claims at one time), the ability to model and report across a complex and large organization, customizable data fields, utilities for data scrubbing to ensure data integrity, the ability to adjust expected payment rates automatically when payment escalators exist and the ability to calculate unique payment methodologies, such as “cost plus” for implants.

**Contract modeling solutions are significantly under-utilized in today’s health care systems. Although 68% of providers model contracts, 75% of those providers use spreadsheets.<sup>5</sup> Less than 25% look at anything other than rates, and the average number of contract modeling full-time employees is 0-2.<sup>6</sup>**

Currently, there are a wide variety of contract modeling solutions available including MedAssets Contract Manager, Concuity ClearContracts, PMMC ContractPro, Kreg Information Systems CMA, MPV Contract Management, Chart Tech Visium, McKesson PECON, and Siemens Contract Manager. In general, software companies that have a focus on variance analysis also have strong contract modeling functionality.

## Contract Administration

Contract administration tools allow users to better catalog, track, monitor and put into operation managed care contracts. Effective contract administration tools can reduce the chance that pre-certification nurses fail to secure prior-authorization for inpatient admission, that billing departments fail to submit a claim within the agreed upon claim submission period or that legal doesn't fail to follow appropriate mediation or arbitration rules prior to initiating legal proceedings. In short, contract administration tools can help an organization to better administer key terms and conditions that impact operations, financial management and the legal department.

Standard features of contract administration tools include the documentation and management of basic payer demographics (name, contact person, product type, etc.), housing and cataloging individual agreements in PDF form, providing "trigger" or "tickler" mechanisms to remind management of forthcoming changes or key events and the creation of a "language library" for language comparison purposes.

More advanced contract administration options support complex organizational arrangements such as a large integrated health system with multiple legal entities and consequently multiple instances of the same payer contract. Some tools also allow for the storing of contract terms and conditions in text format, giving users the ability to perform more targeted searches and contract comparisons. Other features include increased sorting capabilities and the ability to synthesize favorability ratings based on specific language found in each contract

Sample contract administration solutions include Network Contract Solutions NContracts, Vistar VIP System, Emptoris Contracts and Concuity ClearContracts.

### Contract Administration Survey <sup>7</sup>

- ◆ 90% of cataloguing and tracking of contracts is done manually
- ◆ Average number of contract administration full-time employees is only 0-2 people
- ◆ 5% admit significant exposure
- ◆ Average exposure: \$1 million per annum
- ◆ Number of denials for avoidable reason was approximately \$500,000 per provider respondent in 2012



## Provider Credentialing

Credentialing is a process that involves collecting, reviewing and managing physician and other clinical professional qualifications. Credentialing can also include primary source verification whereby a clinician’s medical education, DEA licenses, diplomas, malpractice history, state licenses and the ability to participate in Medicare, among other things, are validated via the original (or primary) source. Credentialing must be completed for each healthcare provider for each contracted commercial health plan, for Medicare and Medicaid enrollment and for hospital staff privileges. An efficient credentialing process can help to reduce the amount of time it takes to credential a provider expediting his or her ability to be reimbursed for treating health plan members.

Standard features of current credentialing systems include the ability to manage credentialing information electronically by clinician, to capture credentialing information for a variety of purposes (managed care, government enrollment, hospital staff privileges, etc.), to populate data automatically to hard copy applications and to support delegated credentialing.

Advanced features include Optical Character Recognition (OCR), automated verification via the internet, dashboards and workload management capabilities and the ability to facilitate primary source verification (e.g. resending verification letters automatically).

Credentialing can often be an extremely time consuming process that can result in losses in revenue. Implementing credentialing technology eliminates the need for repeated manual completion of credentialing applications, improves the accuracy of completed applications, reduces time to complete the credentialing process, reduces the time required for new clinicians to begin realizing patient revenue, facilitates delegated credentialing and decreases cost by reducing the number of employees involved in the credentialing process.

Sample credentialing technology solutions include IntelliSoft IntelliCred, CACTUS, MD-Staff, Echo EchoCredentialing, SyMed OneApp and CAQH (Council for Affordable Quality Healthcare).

The following table outlines the potential return on investment for implementing credentialing technology if new clinicians are not realizing patient revenue due to lag time in the credentialing process.

**It is not unusual for it to take up to 90 days to complete the credentialing process. Under the above scenario, that could mean a potential loss of \$75,000 for a practice with just 2 new physicians.**

Table 2. Potential return on investment of credentialing technology <sup>8</sup>

Number of new physicians	2
Office visits per month per physician	250
Revenue per office visit	\$50
Lost revenue per month if physicians are not credentialed	\$25,000

## Technology Considerations

There are numerous managed care technology applications currently available on the market (“off the shelf”). Before making any technology acquisition however, it is important to consider more than just price when determining what technology is most suitable. For example, some technologies (e.g. client server model) require more support from the provider’s information technology (IT) department than others (e.g. software as a service). Some applications that were initially developed for payer organizations provide excellent functionality for large, complex provider organizations but may be overkill for smaller providers with less complex business needs. In addition, some providers may prefer a subscription pricing model, whereby payments are made on a monthly basis over a 3 to 5 year period, even though the total cost of ownership (TCO) maybe be higher than an upfront capital acquisition model.

The following table outlines some of the key factors to consider when contemplating the acquisition of managed care software technology.

Table 3. Managed care technology software acquisition considerations

	<b>Client Server</b>	<b>Web-Enabled Client Server</b>	<b>Active Server Provider (ASP) or Software as a Service (SaaS)</b>
<b>User Interface</b>	<ul style="list-style-type: none"> <li>• Version of an application installed on each individual end user PC</li> </ul>	<ul style="list-style-type: none"> <li>• No software installation required for each end user</li> <li>• End users interact with application via web browser</li> </ul>	<ul style="list-style-type: none"> <li>• No software installation required for each end user</li> <li>• End users interact with application via web browser</li> </ul>
<b>Support</b>	<ul style="list-style-type: none"> <li>• Software support (updates/upgrades) administered by internal IT group</li> </ul>	<ul style="list-style-type: none"> <li>• Software support (updates/upgrades) administered by internal IT group</li> </ul>	<ul style="list-style-type: none"> <li>• Software support (updates/upgrades) managed 100% by vendor</li> <li>• Little to no “down-time”</li> </ul>
<b>Server Implementation</b>	<ul style="list-style-type: none"> <li>• Software is managed on a server which resides at client location</li> <li>• Increased time to implement</li> </ul>	<ul style="list-style-type: none"> <li>• Software is managed on a server which resides at client location</li> </ul>	<ul style="list-style-type: none"> <li>• Software and Server reside at a data center in a remote location</li> </ul>
<b>Pricing Methodology</b>	<ul style="list-style-type: none"> <li>• Capital cost/upfront license fees front loaded</li> <li>• Ongoing update/upgrade fees</li> </ul>	<ul style="list-style-type: none"> <li>• Capital cost/license fees front loaded</li> <li>• Ongoing update/upgrade fees</li> </ul>	<ul style="list-style-type: none"> <li>• Subscription Fee (monthly, annually)</li> <li>• Little to no initial capital outlay for either the software or the server infrastructure</li> <li>• Increased Total Cost of Ownership</li> </ul>



## Lessons Learned

There are a number of valid reasons to acquire managed care technology. Some technologies provide a clear return on investment either in the form of reducing costs (e.g. reduced FTE need) or improving net patient revenue (e.g. underpayment recovery). Other technologies may impact revenue indirectly through process improvement, better reporting, increased accuracy or by improving the ability to communicate key contract terms and conditions to impacted areas of the revenue cycle. Finally, by better cataloguing and communicating specific terms and conditions, managed care technology can also improve contract compliance and help mitigate any potential legal or regulatory risks associated with participation in commercial, Medicare, Medicaid or even Workers Compensation managed care plans.

There is an expanding market for bolt-on managed care technology in part because managed care related functionality is not the core competency of patient accounting systems or EMR vendors. Unfortunately, the market for commercial off the shelf (C.O.T.S.) managed care technology continues to remain fragmented, and no one software company has managed to provide a comprehensive and integrated managed care product. Nevertheless, many tools have a clearly predictable and measurable return on investment, particularly variance analysis and modeling programs. It is clear that the proper deployment of technology for payment variance analysis, contract modeling, contract administration and credentialing can significantly improve providers' access to the 'untapped reserve' of third party payment revenue.

Harpeth Consulting, LLC is a Nashville based professional services firm that specializes in providing advisory services to healthcare providers. Areas of focus include managed care contracting, technology evaluations, systems integration, business process redesign and strategic option development.

## Bibliography & Footnotes

<sup>1</sup> Agency for Health Care Policy and Research. "AHCPR Research About Managed Care." Agency for Healthcare Research and Technology. <<http://www.ahrq.gov/research/mgdnote1.htm>>. 15 June 2012.

<sup>2</sup> Harpeth Consulting, LLC. Online Survey Q1, 2012.

<sup>3</sup> American Hospital Directory (AHD). <<http://www.ahd.com/>>. 15 June 2012.

<sup>4</sup> Healthcare Financial Management Association (HFMA). <<http://www.hfma.org/>>. 15 June 2012.

<sup>5</sup> Harpeth Consulting, LLC. Online Survey Q1, 2012.

<sup>6</sup> Harpeth Consulting, LLC. Online Survey Q1, 2012.

<sup>7</sup> Harpeth Consulting, LLC. Online Survey Q1, 2012.

<sup>8</sup> Aylward, James. "A Tale of Two Offices." Sy.Med. <<http://www.symed.com/articles/taleoftwooffices.aspx>>. 21 June 2012.

Harpeth Consulting, LLC 2012 online survey is available by request.

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