

5 Data-Driven Ways to Improve Productivity, Accelerate Payments, and Reduce Operating Expenses

A White Paper for Home Health Business Managers
by Datalytics LLC <http://www.DatalyticsLLC.com>

Abstract

Especially this year, most home health care executives are looking for ways to cut costs, speed up collections, and improve revenue without making huge new investments. One strategy often overlooked is to leverage existing investments in information technology (IT) by extending them or integrating them, to achieve desired business efficiencies. A handful of reasonable, incremental investments can yield significant bottom line results through increased productivity and accelerated payment receipts from Medicare.

This paper shows you five ways to increase clinician productivity, reduce or eliminate data entry, speed up payments, and empower your managers to make better decisions.

Introduction

With increasing pressure on state and federal health care payments and a difficult economic environment, today's home health care managers are putting the squeeze on the expense line in their quarterly statements. Working hard to get more from less is the order of the day.

The same imperative applies to existing investments in people and technology. Top managers are finding ways to get more value from their operating technologies and more revenue from their existing employees.

In this spirit, this paper offers five ways to leverage your current personnel and other existing company resources without a huge investment - to reduce costs and make major improvements to productivity.

1. Get More Visits with Less Time, Less Fuel

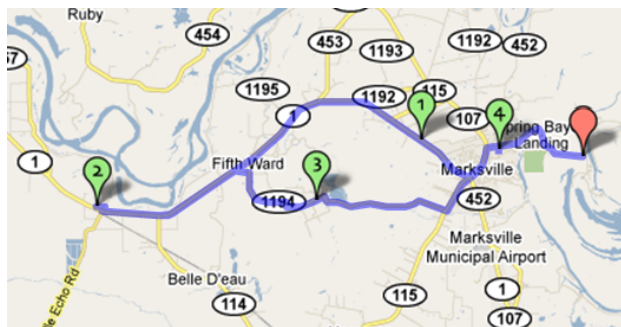
Visiting staff are the lifeblood of most agencies. To a great extent, the productivity and efficiency of

clinicians determine the profitability of an agency. If you're not using an application for routing and scheduling these valuable human assets in an optimized fashion, you could be leaving miles, hours, and additional visits on the table.

The major global package carriers (UPS, FedEx, and so on) solved this problem years ago, but many home health agencies have yet to catch on. Agencies spend enormous sums on mileage each year, yet few of them have tackled the problem of scheduling and routing visiting staff in an efficient manner.

One large Texas-based agency achieved a 29% reduction in mileage reimbursement claims simply by making one *announcement*: that mileage reports would be randomly checked against the optimized route and mileage maps provided by the agency's new visit routing application. Mileage previously cost the agency over \$1 million per year, so saving 29% on this expense moved more than \$290,000 straight to the bottom line.

The same scheduling application allows the scheduler to staff a new appointment by selecting from qualified, available clinicians who live or work closest to the patient, thus reducing average drive time for the agency. Such efficient routing allows an extra visit or two for each clinician every week. Also, when a clinician's schedule changes for the day, the application can quickly re-optimize the new route, allowing the scheduler or clinician to access updated driving instructions and a fresh route map.



Optimized Route Map

Even if your patient care application doesn't provide advanced routing capabilities, adding them in doesn't need to be a big investment. You can leverage the existing address and schedule data in your patient care and payroll applications. A few days of software integration work can link these databases seamlessly into a web-based routing and scheduling application, saving you thousands of dollars each month and achieving more visits with existing staff.

2. Save Money on Point of Care

Many would say the Holy Grail of clinician productivity is paperless patient care. Indeed, it's a compelling vision to imagine a visiting nurse breezily entering data into a remote device, completely bypassing manual data entry from paper forms. In pursuit of that vision, much has been said in the industry press about laptops, tablets, PDAs, smart phones, and other devices for use at the point of care. Many of these devices can indeed improve clinician efficiency, for a clinician well-trained in their use, but often they have turned out troublesome to use – and extremely costly. At best they are a necessary inconvenience, and at worst they can interfere with the patient relationship – and quality of care.

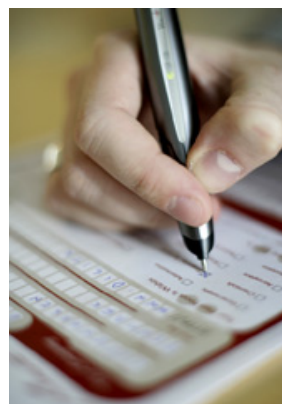
In working with home health executives, we find that many claim to have a point of care system in place. But when asked what percent of their visiting staff is equipped with the system, the

answers they most often give range from 5% to 25%. Many POC systems are so expensive per-unit (and so disliked by the clinicians) that a full-coverage implementation isn't under consideration.

One economical way to implement a POC solution for all visiting staff is to use a digital pen device. Digital pens have pros and cons (see chart next page), but they are extremely cost-effective and can propel your organization toward electronic patient charts. Equally important, a digital pen requires practically no training to use and has no screen or user interface to interfere with patient rapport. Most clinicians prefer a digital pen over any other device when it comes to data entry.

How it Works

A digital pen works by writing on sheets of normal office paper (or bulk printed forms) that have a special background pattern printed on them along with the text and fields belonging to the blank form. The pen stores the pen strokes associated with that form as the clinician fills out the form in ink. Then, when the digital pen is docked at a computer, the pen securely uploads its stored pen strokes to an electronic document repository. In some patient care applications, the document repository is connected to a coding and billing workflow portal. There, office staff can audit patient forms and complete coding and billing tasks for



Digital Pen and Paper

Medicare and other payors. After billing is completed, the original paper forms can be kept as a physical backup or destroyed.

While a digital pen can be a blessing due to its simplicity, it's not without limitations. The biggest drawback to a digital pen is its one-way data flow – it can only record patient data, not display it. If your organization envisions your clinicians having access to electronic patient records at the point of

care, then they'll need a display device for data recall in addition to the digital pen for data entry. While two devices may seem burdensome at first, the cost and simplicity advantages of a digital pen typically outweigh the inconvenience of a second device – particularly when many clinicians are already accustomed to carrying pen and clipboard along with a phone or other device. As well, having a separate device for data entry allows the clinician to refer to patient records on the display device while filling out digital paper forms, thus eliminating the annoying and time-consuming procedure of swapping back and forth between data entry and data display on the same device.

3. Pre-validate Your OASIS Submissions

Agencies often get OASIS payment requests rejected because of errors in the file data format. When you submit an OASIS file containing data errors, it can take days to get the payment report back, examine it to find the reason for the payment rejection, and

re-submit – delaying your cash flow. In addition, too many rejects can make you a target for an audit.

Later, when it comes to evaluating payment metrics, many agencies claim an attractive “average days to RAP” number, but when we start asking questions about average rate of payment rejections, some agencies are actually collecting payments much later than the RAP number would imply.

You can easily reduce your payment rejection rate, and reduce your chances of getting audited, by pre-validating your OASIS files before submitting them for payment.

Some data analysis vendors provide OASIS validation “free” with their expensive benchmarking services. But, for agencies that can't afford 5- or 6-figure subscription fees, more cost-effective options can be tough to find. You may be

Point of Care Devices - Pros and Cons:

Pros	Tablet/Laptop	PDA/Phone	Digital Pen
Secure Data	✓	✓	✓
Rugged	✓	✓	✓
Relatively Inexpensive to Replace		✓	✓
Bi-Directional Data Flow	✓	✓	
Fixed Operating Cost*	✓	✓	✓
Easy to Use			✓
Handwriting Recognition (Writing-to-Text)	✓	✓	✓
Hardcopy (Paper) Backup			✓
Small/Convenient to Carry		✓	✓
Easy to roll out in stages			✓
Cons			
Expensive to Operate	✓	✓	
Requires Significant Training	✓	✓	
Single-Direction Data Flow			✓
Per-Page Operating Cost			*
Significant Theft/Loss Risk	✓	✓	
Susceptible for Personal Use	✓	✓	
Needs Substantial Tech Support	✓	✓	
Device Can Interfere with Patient Interaction	✓	✓	

* Most enterprise Digital Pen implementations incur a per-page operating cost. Datalytics is the only enterprise Digital Pen provider we know of that offers fixed-price Digital Pen service.

surprised to learn that a custom-developed OASIS file validator of your very own shouldn't cost more than a few thousand dollars. Then you'll be able to address data errors in your OASIS submissions *before* you send them off for payment.

Plus, once you have a platform for analysis of your OASIS files, it is easy and cost-effective to add risk analysis and other useful features to the processing rules, giving you additional actionable information about your patients and billings.

4. Accelerate Data Processing

Many of the agencies we work with experience operational bottlenecks where patient care and/or billing information is held up in the course of operations. To illustrate one type of bottleneck, we often encounter business procedures where the same data has to be manually entered into two or more different applications. For example, when patients are using telemonitors, patient data often has to be entered into the patient care application then again into the telemonitor software. Double-entry greatly impedes the speed of data through your agency (data which has to go through your agency before it can be billed to Medicare or other payors) and also increases the likelihood of transcription errors. When you reduce bottlenecks and other inefficiencies, you often reduce your days to RAP and days to collect.

Depending on the cost of the data entry staff and the amount of time spent performing dual entry, you may be able to save money by creating an integration channel between the two applications. Today's facilitating technologies greatly reduce integration costs compared to 10 or even 5 years ago. For example, one of our favorite tools is Mirth Connect, a reliable integration engine for HL7 messages (and other data formats) that is available for free as open-source software. Such a tool can help reduce or even eliminate your costly double-entry situations.

In addition to duplicate data entry, the presence of multiple independent systems creates another major productivity destroyer – conflicting data. Agencies

often have two or more data storage systems that don't communicate with each other. When these systems contain conflicting data – such as patient allergies in one system that are different than the same patient's allergies in the other system – it takes time and effort to determine which one is correct and update the one that is wrong. Of course this time cannot be billed to any payor – it's 100% overhead. And, the same problem can potentially recur again and again the instant any patient data changes.

The problem of conflicting/inaccurate data can be insidious and create a "black hole" of lost productivity difficult to quantify but certainly substantial. Symptoms may include a lack of trust in your applications, for example, when clinicians look up patient information, they always have to check other systems just to make sure the data is correct. Conflicting data can even affect quality of care or increase your liability exposure – imagine the tragedy if one of your nurses looks in the wrong system for a

patient's medication allergies and administers medication that the patient cannot tolerate.

As you can see, enormous value exists in having a single "source of truth" or system of record for your agency. Yet the ideal is not designating one system as "truth" but rather ensuring that *all* your systems display the same data after an update is made. Ultimately it shouldn't matter which system gets updated – all your systems should all have the same information and the same level of truth. Issues of "data trust" should simply not occur. Then, your staff can rely on data from any agency source and stop wasting time and money trying to find the "right" data.

You'll be pleasantly surprised by the system-wide efficiencies that emerge when a simple patient information lookup involves only one application, and when all your staff know exactly where to find the right information.

One way to achieve this nirvana on a limited budget is to develop integration points among your systems that don't currently communicate with each other. As noted previously, new technologies have made system integration affordable to many

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small- and mid-sized agencies – no longer only for the largest corporations. You can start with a small project to provide key integration points between your most critical systems, and then add more integration later – as time, priorities, and budget dictate.

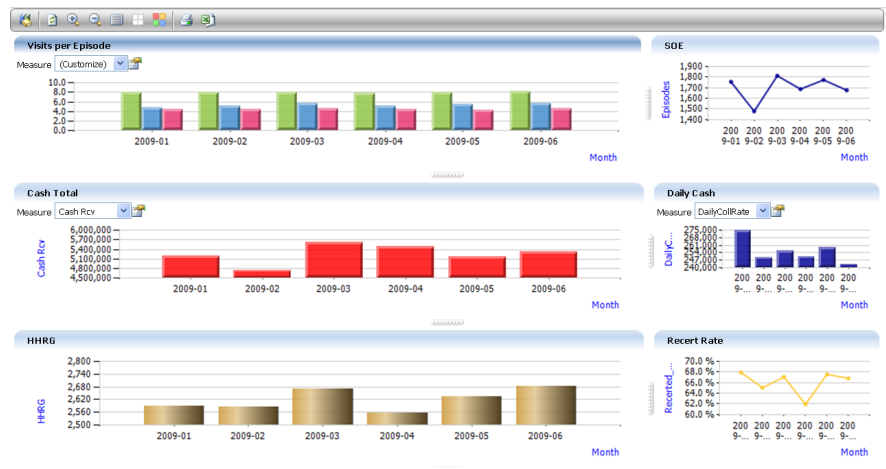
Be aware of one more advantage to affordable system integration: you can choose best-in-class tools for each type of use (for example: patient care, digital data entry, document repository, reporting service), and not worry about whether they are from the same vendor and capable of communicating with each other. You're no longer stuck with a sub-optimal tool in one category just because it is the only choice that works with the application you chose to use in another category.

For example, suppose a particular patient care application may be the most efficient and easy to use, but has a weak reporting engine. With affordable systems integration, you can choose that application for your clinicians and then choose a world-class business intelligence tool to support your executives. Or, perhaps the electronic document repository that is available for your patient care application is prohibitively expensive. With affordable systems integration, a more cost-effective document repository can often be connected up without breaking the bank.

5. Make your Managers Smarter with Business Intelligence Reporting

As your agency grows and expands in new directions, it also faces new challenges. Regulations change frequently; market forces flow in unexpected directions; sometimes new technologies turn into necessities. Your original ways of doing business must adapt across a number of dimensions if you wish to grow or even preserve your revenue and operating margins. As a home health agency executive, how do you identify such opportunities for operational improvements? Do you rely on the experience, insight, and good judgment of your managers? Or do you have a more systematic method for rooting out targets for positive change?

It goes unsaid that any strong organization grows out of the strength and talent of its people and the efficiency and scalability of the business processes they create. Taking this truism to the next logical step: do your people have the tools necessary to realize the full potential of their talents and



Business Intelligence: Operations Dashboard

expertise? With few exceptions, great managers rely on data and information to make critical decisions. If the data isn't rock solid, then it's likely the decisions won't be as good as they could be. What you get with a good business intelligence solution is rock solid data providing a strong foundation for your people to exercise their talent and expertise.

If you have top executives spending hours every week assembling reports for management meetings, you may be using their time and talents ineffectively. For example, at one client site, an executive was spending 6 hours a week assembling data for the weekly management meeting. Assuming the exec's time costs the organization about \$70 per hour, then the annual cost of simple report assembly is over \$21,000!

A good business intelligence solution can put key data at your fingertips instantly. Such easy access eliminates the prep time for management meetings and allows your top talent to spend more time on high-value activities, such as pulling actionable information out of the data – and creating plans to act on it. The latter point cannot be overemphasized – consider not only the direct cost savings but the opportunity cost of report assembly. What is the value of creating an additional 300

hours per year of usable time for a talented manager?

Once you have your staff operating at top productivity, you can use your business intelligence insight to start analyzing other things. Here are just a few examples of what you can do:

- **Replace your average costing method with true episodic costs.** Your true costs change all the time, but average cost methods only allow for changes periodically and are inaccurate almost all the time. True costing leads to better strategic decisions and accurate real-time analysis of contribution margin.
- **Analyze your referral sources for marketing effectiveness.** Determine which physicians are sending you the most profitable patients (or unprofitable) so you can develop (or terminate) the relationships.
- **Audit other reports or data stores.** Business intelligence is an exacting use of your data and will often reveal inconsistencies or inaccuracies among your existing data.
- **Compare your telemonitored patients against your non-telemonitored patients** and find out for sure whether the telemonitors are preventing re-hospitalizations and/or other negative events.

You can start small with business intelligence, fulfilling your most critical reporting needs often for under \$20,000. Then you can add additional data modules – or link in additional data sources – as time and budget allow.

Choosing a Productivity Solutions Provider

When choosing a provider for productivity solutions, it is important to select a vendor with deep domain knowledge in home health care. For example, many database consulting vendors likely have the skills needed to implement a data warehouse, but those without a specific understanding of home health and the compliance

environment (HIPAA, JCAHO, Medicare/Medicaid payment requirements, waiver programs, OASIS data format specifications, and so on) will quickly get bogged down in the industry’s massive quantity of details.

As well, many product vendors will try to limit you to their own solutions, and drag their feet in helping your systems connect to others. Be sure to

choose a neutral provider with limited vested interest in any particular vendor’s product catalog. The provider should indicate a clear willingness to work with your existing

investments rather than replace them with new and costly products.

Next, make sure your vendor uses proven underlying technologies. The data pipeline through your business is only as strong as its weakest segment. Server hardware, database software, analysis services, your application framework, and plug-in components should all come from trusted, best-of-breed vendors and comply with applicable regulations such as HIPAA.

Finally, choose a provider who supports the best hosting and maintenance model for you. If your patient care application is hosted remotely, then you may want to consider a hosted solution for a scheduling application, a data warehouse, or a data integration solution. On the other hand, if your organization prefers to maintain full physical control of your technology and handle all the maintenance that entails, you may prefer an on-site implementation.

Why Datalytics?

At Datalytics LLC, the primary focus is operational productivity for home health care – in the form of data warehousing, reporting solutions, digital data entry, and custom integration/application development. The company’s lead consultants and developers have an average of 15 years’ experience developing IT solutions specifically for home health. Their in-depth expertise includes Medicare, Medicaid, private duty, therapy, hospice, long-term care, and many more specialties.

What is the value of creating an additional 300 hours per year of usable time for a talented manager?

Datalytics relies on Microsoft SQL Server and SQL Server Analysis Services for the critical data warehouse database and raw OLAP and Business Intelligence capabilities. The company leverages all the power and benefits of Microsoft SharePoint for building web applications and workflow solutions.

Datalytics has been providing digital pen-based data entry solutions for almost 10 years, with thousands of pens in use across the country today.

With a reputation for innovation and superior customer service, Datalytics can help you optimize your business operations by accelerating the productivity of your team.

Visit **www.DatalyticsLLC.com** today to learn more. Then, call or email Datalytics to schedule a free consultation about your organization's productivity environment. Datalytics has helped many agencies extract more value from their existing technology investments, empowering their team members to cut costs, streamline operations, and improve management decision-making. Isn't it time Datalytics helped you empower *your* team?

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