A Guide to Complete Supply Chain Integration of Merged and Acquired Entities:

The Story of Hackensack Meridian Health Network (HMHN)

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Abstract

With annual revenue over $6 billion, 35,343 employees, 7,202 physicians, 184,845 patient admissions, 1,794,656 outpatient visits, and over 150 care delivery points, Hackensack Meridian Health Network (HMHN) is the largest integrated delivery network (IDN) in the state of New Jersey.

This paper shares the experience of a true and complete integration of supply chain in a mid-sized IDN under an accelerated timeline. People don't necessarily fear change, they fear the uncertainty surrounding a change process that lacks proper communication, shared vision, and effective leadership. Effective change management requires a clear vision of the future, proper assessment of the current state, development of a multi-disciplinary team, training and education, and continuous communication to all stakeholders.

Over the course of two years, the HMHN supply chain team was able to transform 17 hospitals, 15 long term care facilities and assisted living centers, over 340 physician practice locations, a school of medicine, medical air transportation system, a large realty management division, a home care program spanning over 100 miles, and a center for discovery and innovation into a single unified platform. That platform consists of a single group purchasing organization (GPO), enterprise resource planning (ERP) system, item master, electronic data interchange (EDI) and order processing automation, and a consolidated purchasing service center.

The study is structured to provide a basic framework for integration that can be used as a guide and customized to meet the specific needs of any system.

Keywords: healthcare supply chain, M&A, mergers and acquisitions, supply chain integration, electronic data interchange, EDI, cost quality outcomes, CQO

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Background

Lower reimbursement rates, declining inpatient admissions, higher staffing, and pharmaceutical and technology costs are weakening U.S. hospital margins. An analysis of Modern Healthcare Metrics data (Kacik 2019) found more than half the nation's stand-alone hospitals (53.2%) have lost money on an operating basis each year spanning 2012 to 2017, which is more than twice the share of system-owned hospitals (25.9%).[1]

Meanwhile, health systems are looking to acquire hospitals in the same or adjacent markets as they claim that scale is necessary to contain costs, improve access to capital, bolster care, and boost their leverage with payers and vendors. The number of independent hospitals in New Jersey and across the country continues to wane. Nearly three-quarters of all hospitals were part of multihospital systems in 2017, up from 70.4 percent in 2012, according to Modern Healthcare Metrics data (Kacik 2019). [1]

According to Deloitte, hospital mergers and acquisitions (M&A) show no signs of slowing down, with financial, market, competitive, and regulatory forces likely to drive further consolidation (Deloitte 2017).[2] Is this consolidation in health care achieving the intended value – lower costs, better care quality, and improved clinical and financial outcomes?

Although economists maintain that health systems often raise prices following mergers and so-called efficiencies are seldom reached given the complexity of integration, analysis has shown that health systems can achieve their cost, quality, and outcomes (CQO) goals if they invest time and resources into effective change management (Deloitte 2017).[2]

Deloitte's Center for Health Solutions and the Healthcare Financial Management Association (HFMA) performed a quantitative analysis of the financial, operational, and quality metrics for 750 hospital acquisitions or mergers, administered a qualitative online survey of 90 hospital financial executives, and conducted phone interviews with additional executives. They found the M&A experience varies greatly, but hospitals with clearly defined goals and strategies, including proper integration planning and execution, are most likely to achieve cost and quality outcomes (Deloitte 2017) [2].

Why Supply Chain?

The AHRMM CQO Movement clearly defines the strategic role of supply chain in a health system's clinical and financial performance, and the need for supply chain leaders to have a seat at the decision-making table:

"Fundamental to CQO is the belief that supply chain is the best suited to operate at the intersection of cost, quality, and outcomes because of its unique role in interacting and/or 'touching' all other departments and partners within health care. The CQO Movement explores the inter-relationships between these three elements, as opposed to the more historic view in which these factors were considered separately, often by different functions within the hospital environment, e.g., clinical, financial, etc." (AHRMM 2019).[3]

In his 2019 article, *Supply Chain Impact - Mergers and Acquisitions*, veteran supply chain professional Gary Marion, who oversaw supply chain operations at Pfizer, Amgen, the U.S. Army, Cleveland Golf, Stila Cosmetics, and other companies, describes the significant impact of supply chain on the M&A process.

"A well-prepared supply chain team can deliver savings and drive the increased profitability that the new entity is looking for. And if your supply chain team can deliver savings

and increased profitability, you might be able to avoid (the) human capital consolidation part" (Marion 2019).[4]

In an earlier article on M&A, Marion explains how supply chain is an area of actional spend, meaning one that can be impacted through change:

"One of the biggest savings opportunities is in supply chain. I'm guessing that a company with $28 billion in revenue has about $5 billion in actionable spend. Actionable means you can do something about it…. Any organization wants its supply chain to deliver what their customer wants, when their customer wants it - and do that in a way that spends as little money as possible. When your baseline actionable spend is $5 billion, there's a lot of work to do" (Marion 2015).[5]

An analysis of 10 years of M&A transactions conducted by multinational professional services firm Ernst & Young (EY) found the procurement function typically delivers 50-70 percent of cost synergy targets (EY 2020).[6] The report authors state:

"A thoughtful and tightly executed plan to capture this value in the supply chain can not only help deliver on short-term cost synergy targets, but also set up the organization for long-term profitability."

The Need for Collaboration

Health care can be fiercely competitive, with health systems and hospitals vying for shrinking reimbursements. In order to survive and thrive as an industry, individual organizations must be willing to share their experiences and lessons learned with their peers. Because the M&A journey is fraught with complexities and uncertainties, it is a high stakes game for those beginning to navigate its waters. As Deloitte states, those hospital board members and executives

who contemplate participating in this trend - either as a buyer or a seller - may benefit from lessons learned by those who preceded them (Deloitte 2017). [2] This is a key reason why we at HMHN are sharing our story of supply chain integration with the AHRMM community.

The HMHN Story

Over the past two years, Hackensack Meridian Health Network (HMHN) has embarked on a journey to create one integrated network that has changed how health care is delivered in New Jersey. Through mergers and acquisitions (M&A), HMHN has grown from one hospital to a network of 17 hospitals, 15 long term care facilities and assisted living centers, over 340 physician practice locations, a school of medicine, medical air transportation system, a large realty management division, a home care program spanning over 100 miles, and a center for discovery and innovation.

During this time, the HMHN supply chain team has successfully consolidated all of these individual entities onto a single unified supply chain technology platform, where they are all using the same enterprise resource planning (ERP) system, item master, charge master, electronic health record (EHR) system, group purchasing organization (GPO), and distributor. Furthermore, the HMHN supply chain team has achieved a 100 percent paperless procure-to-pay process throughout the network. As an IDN, HMHN is *truly* integrated.

This paper provides a basic framework for integration that can be used as a guide and customized to meet the specific needs of any system. It is designed to be a user's manual toward a quick implementation, including training, education, and conversion to a standardized platform. At some point, everyone in health care will be involved in some form of M&A. If you are not part of the parent organization that is leading that implementation and change, but rather the newly merged entity, this guide should still provide value by preparing you for what to expect when the parent entity initiates change.

In order to support a high level of automation we have subscribed to multiple supply chain automation platforms, including an electronic fax (eFax) and email transmission module. Using a fax and/or e-mail module provided as part of your ERP platform may be a viable option if you have the expertise or resources needed to maintain the system with in-house personnel. Otherwise failures will result in the delay of order transmissions and placing a help desk ticket with an outside provider. We chose to disable our ERP system's efax module and deferred to a third-party fax and/or e-mail module for this reason.

C-Suite Vision and Leadership

The ability to operate as a true IDN with system-wide integration of people, processes, and technologies starts at the top with executive leadership. HMHN's senior leaders are closely aligned under a shared vision for the health system. Because of this, they are able to quickly move on decisions and put the resources in place to support them.

HMHN's financial services division has been engineered by insight, vision, and a proven track record of success. They have achieved complete integration and direct management over key departments, including information technology (IT), finance, purchasing, materials management, charge master, business intelligence (BI), and decision support. In any health system, having all of these functions as an integrated unit reporting to the same leader enables him or her to orchestrate and coordinate efforts, as opposed to conflicting reporting structures where department heads compete for limited resources.

In supply chain, as we work on the integration of each new partner, senior leadership not only supports us on a strategic level but is also willing to provide the required resources (time, talent, and tools), and run interference on behalf of our team when needed.

For example, it was originally planned that we would go-live with five hospital mergers on our integrated network simultaneously. Upon further analysis of the situation it was determined that this approach was not recommended. We presented the scenario to senior leadership and they agreed to delay the go-live of the fifth hospital – a large teaching hospital with a children's hospital – by six weeks. Under the revised plan, we brought four hospitals live in a single day. In the weeks that followed, as we were providing go-live support for these hospitals, we were preparing, implementing, training, and educating to bring the fifth hospital live on our ERP system.

From the merged partner's perspective, strong leadership vision and support instills confidence that the integration will be a success. While there will always be doubt and uncertainty - if not outright resistance to change – a top down approach helps pave the way for effective change management.

A Unified and Standardized Technology Platform

"Think about the integration of lives when two people get married….Business mergers and acquisitions reflect a similar commitment toward positive growth, but the amount of things to integrate once the ink dries becomes a whole different ballgame. In fact, integrating two companies into one, and all that entails, is extremely cumbersome and complex, to put it lightly (Brunswick 2016).[7]

HMHS's leadership's vision was for a completely integrated network where all entities were operating under a unified technology platform that drove all critical functions, including finance, human resources, payroll, general ledger (GL), purchasing, materials management, decision

support, inventory control, and business intelligence (BI). We have one item master for the network, which is tied to a single charge master, which is tied to a single EHR system. Consolidating systems applications is a best practice approach that facilitates harmonized business and data management processes. Consistencies in critical information flowing among applications, people, and systems helps the acquiring organization realize business value, while inconsistencies can compromise M&A success (Brunswick 2016).[7]

Furthermore, the HMHS network is completely electronic – no paper passes hands in any transaction. With all processes and data housed within one system, the health system also has access to accurate, comprehensive, and timely information on which to make decisions quickly and easily.

One challenge that we hear among health care provider organizations is they struggle with system updates because they have significantly customized older versions of their ERP platforms. Each time the system manufacturer issues an upgrade, or even a minor "fix" to the platform, the health system must write all of its customizations and code into the new version, which is disruptive, time consuming, and expensive.

To avoid this, HMHN stays as close to a "vanilla" installation with our ERP system as possible. We avoid unnecessary customizations and where practical adjust business practices to match the delivered functionality of the software. Keeping modifications and customizations to a minimum allow us to easily load updates, version changes, and refinements, keeping us on the most recent releases. We recommend that you mold your processes, policies, and procedures to your ERP platform to the best of your ability to avoid intensive customization.

Implementation Team

Tips for Assembling an Implementation Team

- Identify key roles in conjunction with the project manager
- Detail personal attributes and skill sets
- Interview potential candidates
- Select members by strengths
- Train team members in the project management process
- Cross train all members to provide for continuity

HMHN has assembled a permanent implementation team that is called upon during the integration of a newly merged entity and upon successful completion are released to return to their normal responsibilities. The team is comprised of subject matter experts (SME) for all departments impacted, with representatives from both HMHN and the new partner.

As Marion states in his article, "Your customers are going to want to get their orders while all of this is going on… So part of the triage team's job and the supply chain integration team's job is to continue to maintain on-time delivery and customer satisfaction even in the midst of creating a new company" (Marion 2019).[4]

During the course of our many integrations, HMHN has developed a basic project plan that we use as the foundation for each integration (see Appendix of this document). The implementation team collaborates to identify what is unique and different about the newly merged entity that necessitates additional line items on the project plan. The team adds those additional tasks to the plan, defines them, allocates resources, and sets target timelines.

It is critical to integrate SMEs from both the new partner organization and HMHN into the implementation team and project plan development. While they know their situation today, we know tomorrow, and working together is how we get there.

At the heart of this team is a project manager (PM). He or she should be an empowered individual who reports to an independent department and therefore can take an unbiased

approach to the implementation, similar to an auditor. The project manager must be able to bridge personalities and conflicting priorities and serve as a liaison to the executive sponsor.

The Project Manager (PM) Should Closely Manage:

- Spend
- Project deliverables
- Due dates
- Change requests
- Resource constraints
- Plan for go-live and post go-live support

Let's say a project on the plan is in jeopardy because 80 percent of the initiatives are behind schedule. The project manager has an obligation to the executive sponsor to communicate the issues and why they are occurring, and make recommendations so that the sponsor can decide on the correct course of action – do we stay on plan or do we push the project out?

Best Practice Tips: Project Management

- Project manager (PM): Manages spend, project deliverables, due date, change requests, and resource constraints.
- Sponsor/executive buy-in: Allows the PM to escalate issues or decision items. They will help champion and support the project throughout the organization.
- Team: Need internal SMEs that will identify tasks for the project plan, for all departments impacted.
  - Be sure to include SMEs from the entity you are onboarding as they will know current workflows and policies.
  - It is critical to understand the functionality of both software platforms and modify processes to be aligned with the software capabilities.
- Due diligence/requirements gathering:
  - Identify unique workflows of a business unit, any exception processing.
  - Identify interface engines coordinating the operations between two systems (e.g. ERP and EHR, e-commerce platform and AP software).
  - If you spend the time up front, it will eliminate rework later.
- Policy changes:
  - Adopt one set of policies but be open to recommendations as long as they do not have the potential to jeopardize the timeline and outcome of the project. Take the best of the best.
  - Customizations should be limited whenever possible. A vanilla implementation is optimum. This facilitates easier system version updates and bug fixes.
- Communication with the project team:
  - Hold regularly scheduled team meetings. Make attendance mandatory and allow only proxies that have full decision-making responsibility to serve as backup.
  - Communicate any changes to the entire team as any changes could impact multiple areas (e.g. department change will impact purchasing, AP, vendor feeds, ship to locations).
- Maintain issues list:
  - Document risks and how you will address them.
  - Document open items and the resolution.
  - Document decisions (who made the decision and date made).
  - Provide regular updates to the project plan; add or delete agenda items as needed.
- Escalate concerns early:
  - Be transparent, get support, direct decision items to the right decision-makers - get your sponsor to assist, if needed.
  - When you raise a concern also offer options for how to resolve it. Identify problems and offer multiple solutions to solve it.
  - Make recommendations as to the best course of action to be taken.
- Closely manage project tasks, due dates, and change requests:
  - Don't allow for scope creep (changes to original scope of project), or if you allow changes, the team needs to determine impact to timeline.
- If you've used the contingency in your schedule, you'll either need to:
  - Bring on additional resources (increased spend).
  - Push your go-live date, or
  - Reduce scope in other areas.
- Contact vendors early.
- Test all aspects of the workflow.

Discovery

Integration planning must begin before a deal is signed. While the parent entity cannot actively ask questions about the new partner (e.g. what distributor or GPO do you use?), it can perform some reconnaissance work to uncover what is already publicly known throughout the industry.

Once the deal is finalized, communication channels are opened and the parent organization should make every effort to gain as much detail as possible about the newly merged entity's people, processes, and technologies to pave the way for effective and efficient integration.

Understanding which ERP platform the new partner is using and which version helps the parent organization determine the level of challenges it will face during integration. For example, if both organizations are using the same platform and version, integration will be far less challenging than if they are using completely different platforms, or if the newly merged entity is using an outdated version of the same platform.

Once the platform and version are determined, the parent entity's purchasing team can assess the level of education and training required to transition the new partner's employees to its platform, including the number of employees and potential challenges.

Although health care supply chain processes, in general, have significantly matured over the past two decades with the adoption of electronic procure-to-pay processes, don't be surprised to discover that some health care facilities still conduct business manually. Transitioning a partner with paper-based procurement onto a fully integrated electronic platform will require a complete change in both culture and processes.

It is critical to assess not only the ERP platform of the newly merged entity, but also all of the functions and processes driven by it (e.g. if the new partner is using an ERP system interfaced with patient accounting and the charge master, but not with the EHR). With this information in hand, the parent health system can determine whether it has existing interfaces it can leverage or if interfaces must be built. If the system vendor must build interface engines, the health system must determine the cost and timeline – and whether it is even worth it.

At HMHN we faced this challenge during our initial integration of hospitals. The northern and central region hospitals had been using one platform for automated supply replenishment, while the southern region used a different platform. We did not take this into consideration during the initial planning stages; therefore, during ERP system go-live we were faced with the challenge of either building an interface engine or bringing in different supply dispensing cabinets.

Set up teams from both entities to openly discuss:

- Policies and procedures.
- Level of computerization adoption within the organization.
- Overall assessment of the system accomplishment level of end users and requisitioners.
- Protocol for creating items in the item master creation.
- Requirements and platforms for hardware (e.g. double monitors, CPU processing speed, etc.).
- Software (e.g. some modules interface well only under Internet Explorer, others under Chrome).
- IT help desk support along with in-house capabilities.
- Training facilities, designated rooms, and an assessment of audio/visual (AV) capabilities.

That was a strategic error we made, but thankfully it was for a small hospital. Having learned that lesson, we now ask the newly merged entity up front: What ERP system are you running, what interfaces do you have in place with other systems, is what you have in place current or antiquated versions of the software, etc.? From there we can determine whether our ERP system has a similar solution to which we can transition them.

Determining Best Practice: Taking a Hybrid Approach?

The goal is to make the transition as seamless as possible so we recommend studying in detail the policies and procedures of the newly merged entity. After all the information is gathered then make decisions that best serve current policies and procedures with the least disruption of both organizations.

While in an ideal world the new partner would be fully integrated with the parent organization's processes and platforms, in some cases a hybrid approach makes sense. Making minor changes to both systems may be a viable alternative but carefully weigh the disruption and effects of "breaking" the parent organization aka "source entity" against the potential benefits gained. For example, changes to the source entity may require training and education at both facilities, which may not be an option depending on resources. Unless the new dynamics of the merger prohibit maintaining source processes consider only the minimal changes to maintain functionality of both entities.

Best Practice Tips: Ordering Process

During the discovery period, inquire about the following aspects of the newly merged entity's ordering process:

- Current tangible orders, service quotes/contracts, capital.
- Digital repository for scanned contracts and agreements or paper-based files.
- Paper transactions (to what extent).
- Partially automated processes that are interrupted mid cycle with paper transactions.
- Non-catalog items.
- Specialty departments.
- Current use of online vendors using legendary portals for ordering.
- Are there vendors that are boarded to utilize "punch-out" capability and are specifications in place to bring them on if not currently utilized or move them into a single instance/account number?
- Determine how vendor portal-based transactions will be legitimized into your ERP systems and accounts payable (AP) systems.
- Is it beneficial to move away from vendor portal transactions and move towards consolidation into the ERP system? Don't over complicate transactions that are working well outside the ERP system, rather find a way to legitimate interfaces with AP and the GL improving automation and workflows.

We faced this challenge when integrating hospitals in our northern and southern regions. The northern region used an ERP system module for ordering from official inventory, what was termed as a “materials stock request” (MSR). The northern region used a separate ERP module for non-stock, intangible and capital items, which was called “classic requisitioning.” (All regions have currently transitioned over to the same e-Procurement requisitioning.)

The southern region hospitals used a different ERP vendor’s function, which did not require the requisitioner to differentiate between stock and non-stock items. If someone wanted to order tissues and pacemakers, they could put everything on one requisition and the system would sort it out. We reconfigured our ERP system into this environment, which required a great deal of time and effort but enabled the southern region to convert to our ERP system.

We considered transitioning the northern region to a single-requisition environment, but it would require us to train about 4,000 users on this new tool, so we have delayed the roll out. Today we maintain those two worlds within our ERP system – with the northern region using MSR and e-Procurement, and the southern region using the single requisition model and e-Procurement. It is a hybrid approach that makes sense for our health system today.

Recently the network embarked on a large-scale project to move all end users from "classic" ERP system over to the e-Procurement format of requisition building. In sharp contrast to some of our earlier integrations, no outside agency employees or resources were utilized during the roll-out of e-Procurement. A new entity was brought onto e-Procurement every two weeks. Two teams were utilized for the duration of the project. The advance team trained and educated the staff while another provided post go-live support. While one entity was in the process of training, another was going live on e-Procurement.

GPO and Supplier Contracting

We recommend that you think of your IDN and its facilities as one company with multiple ship to locations, especially when it comes to discussions and planning sessions with GPOs and vendors in terms of tier selections and pricing structures.

It's no secret that GPOs and vendors have different price structures for different health care facilities. Because of volumes and tier structures, the price that a large teaching hospital negotiates for a product is most likely going to be far lower than what a small, suburban hospital would secure. It is impossible to maintain multiple price structures within a truly integrated network that has one item master and charge master. Therefore, contract consolidation is necessary.

With our GPO we can only electronically integrate one price for a product and select only one tier; therefore, we have one price throughout all of our systems (e.g. item master, charge master, EHR) for all of our facilities. The purchase orders (PO) that our health system generates list HMHN as the guarantor, shipping to one or more of our facilities.

When merging with an entity, we first determine whether they use the same GPO as HMHN or a different one. If they are an existing member of our GPO, we evaluate the impact of bringing them live, including how it impacts our network tier selection. It is the same process for non-GPO contracts. Our goal is to standardize on single suppliers for the network, but that is not always a straightforward process.

When we have merged facilities with paper-based contract management processes, the greater challenge can be finding the contracts in the first place. There have been cases where a facility has a contract in place for a specific service but complete copies of executed agreements are not available.

Criteria must be developed to make a decision on contracts or agreements that have several months remaining until expiration. If a new PO in the source ERP is required that will be an enormous task. Consider enlisting the assistance of identified key users and use the creation of requisitions for contract PO as part of the training exercises. It will have meaning to the end user due to the relevance of topic and purpose. As a best practice, begin GPO and supplier contract assessment as early in the integration process as possible to help pave the way for standardization.

Vendor Alignment

While supply chain integration during M&A varies from industry to industry one goal remains the same: Avoid disruption to the customer. To achieve supply chain delivery continuity, the acquiring organization must work to preserve relationships with key customers and strategic vendors (PWC).[8]

During the discovery phase of a merger, the HMHN team assesses the size of the organization to estimate its number of vendors. If upon reviewing the newly merged entity's vendor master the team determines that both HMHN and the new partner have the same vendor, they use the information on that vendor already contained within HMHN's item master as the default. On the other hand, if it is a vendor not currently used by the HMHN network, the team performs a vendor qualification process before adding its information to the IDN's vendor master within the ERP system.

In our experience, the less sophisticated the merged partner (e.g. manual versus electronic processes) the more complicated the vendor relationship will be. Therefore, a less sophisticated partner requires greater scrutiny when integrating their vendor master.

We found that if a facility phones in orders or faxes them by hand, the quality of data in its vendor master and item master is significantly worse compared with those that electronically transmit orders via EDI. We came across instances where a newly merged entity was faxing orders to a supplier under the wrong name with the wrong part numbers but because someone on the supplier side would manually intervene and correct the issues the order still went through. In other cases, an entity would process orders to the wrong company name or address but the customer service department on the receiving end knew who they were meant for and shipped it to the right location.

Best Practice Tips: Vendor Alignment

- Set a goal of 100 percent onboarding of all vendors starting with those vendors that have the highest number of POs or lines transmitted. Use current data and move down to those with the lowest velocity.
- Create a vendor master spreadsheet by merging the vendor master from the source facility against vendors from the newly merged entity based on tax identification number (TIN), address, and other identifying information. This was done in Excel but any spreadsheet software can be used.
- Identify tangible versus non-tangible vendors:
    - Work with teams from both entities to identify suppliers that provide either tangible versus non-tangible commodities.
    - Reach out to all vendors supplying tangible goods to provide "ship to" account numbers, updated W9 documents, and additional information needed to ensure the vendor master is updated.
    - Prioritize calling on the tangible vendors for "ship to" account numbers needed based on invoice volume. Ensure that all vendors from which you frequently order are setup to transmit electronically before go-live, knowing you will have time after go-live to setup those vendors used infrequently.
- Do not add vendors without tax IDs to the vendor master. Instead route them through a vendor qualification process to become an active vendor on file.
- Notify vendors of the merger date and the new "bill to" address for invoices. Collaborate with AP on communicating to all vendors the merger date and the new "bill to" address for invoices. Ask AP to send new shipping account numbers. Notify vendors that paper invoices will no longer be allowed. This step is contingent upon the availability.
- AP and materials management teams should review and approve the final list. AP adds new vendors into the vendor master in the ERP system electronically via download based on the vendor worksheet used during the prior processes. Materials management uploads the item master to all matched/new vendors.

This became problematic when we attempted to transition the entity to electronic checks or wire transfers. In those cases, if an entity sent a transaction to the wrong address there was no

human in the middle to manually intervene and correct the issues. This is why the vendor management piece of integration is critical. You must take the time to qualify vendor information up front to avoid issues on the back end.

Vendor Alignment Lessons Learned: Critical to the success of integration is having one vendor master that is managed by one centralized group or person and reviewed by all stakeholders. The purchasing and AP teams each look for different metrics based on their functions in the process. Rather than having each department compile their own vendor master (which results in missing information or duplicates), they should each review a single instance of the vendor master to ensure it contains the information relevant to their function.

Having a tax ID number for each vendor is critical to effectively matching vendors for alignment. It is much more difficult to align vendors based on company names and addresses. Because many of the companies from which we purchase were set up in the vendor master many years ago, they either did not have an associated tax ID number or the correct tax ID number as a result of mergers, buyouts, and/or company name changes. We found many had different divisions and different addresses/PO boxes, and we could not assume they were one in the same across companies. To correct this, we requested an updated W9 form on the letter that we sent to vendors advising them of the merger. When we received the W9s we updated the information within our vendor master. This helped facilitate easier vendor alignment for all future mergers.

Set up tangible “ship to” account numbers before go-live. There were frequently used eFax and email vendors already set up within our e-commerce tool under our network that didn’t use “ship to” account numbers, or we could not obtain an account number prior to the go-live date for the new facility. To address this issue we set up a default “ship to” account number, which

allowed the orders to transmit successfully to these vendors and prompted them to reach out to us as needed to update the correct “ship to” account number in our system.

Testing PO transmission in all forms (EDI, fax, e-mail, and print dispatch) is important for a successful go-live. We tested basic orders to our distributors, EDI vendors and multiple eFax and email module vendors to ensure orders were transmitted successfully, especially with regards to the “ship to” location. We learned that we needed to test par cart, replenishment orders, and special “ship to” locations set up for receiving purposes as each scenario is processed differently based on the facility. We learned that each facility handles its receiving and some scenarios require IT to add coding for processes to work as intended.

For example, one hospital with which we merged had multiple “ship to” locations that were designated for one supplier’s orders only. However, end users were defaulting to those “ship to” locations based on their department locations and ordering from vendors other than this supplier, which was causing the orders to fail due to “no ship to location defined” errors. Our IT team needed to add a code that based on the vendor would determine the “ship to” location for that ordering department.

For more testing guidelines and best practices, see supplemental information in the Appendix of this document.

Item Master Cleansing and Consolidation

When integrating a newly merged entity, it is crucial to scrutinize and clean its item master data before adding it to your item master. That way, you avoid polluting the current data you have in place. With a fully integrated network, inaccurate and/or incomplete item master data not

only results in EDI transmission errors, but additional errors downstream as the item master feeds the EHR, charge master, patient accounting, and other systems.

Best Practice Tips: Item Master Cleansing and Consolidation

- Use a data warehouse tool to cleanse and refresh both item masters prior to any consolidation.
- Involve the new GPO, scrub data, and identify exact matches.
- Perform a manual review, search for similar items, further aligning masters. The importance of human review for inconsistencies cannot be underestimated.
- Lock down item master edit authority, centralize that function, enlist experts.
- Start building outlier items not located early on, cleanse again.
- Avoid "catalogs" and eliminate duplicates items, be sensitive to unit of measure (UOM) issues. Do not segregate items by location. Educate end users to be selective and always look twice.

We learned an important lesson when merging with a small suburban hospital that wanted its own catalog of items. Hospital leadership feared that if their departments had access to HMHN's entire item master, then requisitioners would order items they did not need. Therefore, we gave departments access to a limited catalog of items based on past purchases.

Unfortunately, this catalog contained only approximately 60 percent of the items they needed because they allowed non-file transactions. As a result, the facility kept adding more and more items from the HMHN item master to its own catalog. This became a tremendous challenge from a data management perspective. Based on that experience we decided that the best approach is to give each newly merged facility full access to the HMHN item master from the start. The fear that departments will order unneeded items when given this access has been unfounded.

To maintain the overall integrity of our item master, no one from the purchasing department is allowed to make changes to the data, with the exception of price. If someone wants to make a different change, he or she must complete an add/change request form. The materials management team reviews the request, makes the changes, and notifies the requester.

Preparing for EDI Transactions

With 99 percent of HMHN's orders processed electronically through our e-commerce tool – either directly through the tool or through eFax and email solutions – the team must add the new ship to locations, account numbers, and PO transmission methods for these vendors into both the ERP system and e-commerce tool before the go-live date of the merger.

HMHN had over 1,200 electronic trading partners to coordinate the crossover to a single EDI instance. Engaging the help and support our EDI intermediary was essential. For vendors that are already on this company's electronic trading exchange, we leveraged its mergers, acquisitions, and divestitures process, which allowed us to run multiple instances of EDI platforms simultaneously so that one could be shut down and migrated over to the source system. Otherwise one system would have to be taken down completely and rebuilt. This process takes 10 days leaving one system down and on manual processing.

Under the direction of our purchasing department, our e-commerce partner sent out a broadcast communication to all our trading partners, including the dates of cutover, requirements, and responsibilities of both parties, testing parameters, level of support needed, and the scheduling of regular meetings with the EDI support team and the IDN project team.

When budgeting time allow longer timelines to work out the details surrounding the transmission of POs for statements of work (SOW), master service agreements (MSA), and other legal contracts. Most of these transactions do not easily transmit electronically and an automated

solution must be enabled and tested. We elected to use electronic e-mail or fax transmission format for these orders.

Best Practice Tips: Vendor Onboarding

- Notify all vendors of the established go-live dates, their responsibility, need for collaboration, and testing schedules. You will be dependent on your vendors to some extent. They need to allot resources and alert internal parties.
- Meet in person with all significant trading partners and advise them of their role in the process. Gain buy-in and ascertain that they are capable partners in the process. Schedule regular meetings and appoint a team leader per vendor relationship.
- Determine if there are any contractual obligations remaining that may interfere with the full implementation of the merger of systems. Re-negotiate early and resolve impediments to success. Vendors need to be open to creative solutions in order to be a survivor in the newly formed network.

Decisions must be made with the finance and AP departments regarding how long they intend to keep the old AP system up and running. This will determine if new POs will need to be created to enable future invoices to be paid in the new system. If AP runs two systems in tandem for a period of time in order to process existing invoices that will provide some grace period.

HMHN only accepts electronic invoices (e-invoices); therefore, vendors must be advised of any changes of location for hard mailing of paper invoices or electronic processing of invoices. Specific dates for cutovers must be provided. Be sure to shut down alternate lockboxes and or PO boxes. Work with AP on a process to wean down on accepting paper invoices to improper locations.

We enlisted the support of our vendor qualification partner and our sales representative credentialing partner to send multiple e-mail notifications detailing changes and timelines to the local sales representatives and corporate offices. Where appropriate, we mailed out notification letters.

Vendor Transaction Testing

When testing transactions during the integration of a new facility, the health system must take a "cradle to grave" approach where it tests every step of the process – from PO creation to payment receipt - because there could be breaks anywhere in the process. For example, a PO could reach the vendor but were the products actually shipped, and if so, were they shipped to the right hospital?

We suggest that you conduct testing with a sophisticated trading partner. We chose a key supplier and worked with their team to test the transmission of EDI transactions for nominally priced items. We onboarded the supplier for the newly merged entity, issued some test POs, and called the company when we sent them to confirm their receipt. The supplier, in turn, received the orders, sent back the advanced ship notice (ASN), and shipped the products, which we received into our system. The supplier issued an invoice, which we vouchered and routed for approval, cut a check, and sent the payment electronically.

Best Practice Tips: Transaction Testing

- Identify EDI and e-mail and eFax module vendors that have a significant impact to your operation for testing (especially primary distributor). This will ensure the transmission of critical orders without issue on the go-live date.
- Testing must take a "cradle to grave" format. This means a full life cycle test starting with item master selection, requisition creation, PO calculation and build, transmission to vendor, receipt, invoicing, voucher creation, and check issuance.
- Pick a vendor partner that is ready and willing to participate in this process. It will take time and much coordination.
- Identify items in the item master that are mapped to your testing partners with low dollar value for testing purposes.
- Identify a cost center that will be used for billing purposes. Orders will actually be followed from "cradle to grave" and your selected cost center will incur charges for goods received.
- If you are implementing a system with online returns or ROA processes this is the time to test that process. Include in your development coordination with AP and the general ledger (GL) to determine if the vendor return actually resulted in an acknowledgement of the credit and a reversal in the GL.

Because we only accept electronic invoices, our trading partners must be able to either send us an electronic invoice that gets vouchered in the ERP system through AP, or they can send a paper invoice to our e-commerce solutions partner, which converts it into an electronic invoice for us to process.

Communication and Change Management

Communication and change management is one of the most challenging aspects of the integration. “Companies that implement an effective communication plan concurrent with the announcement of an M&A transaction can significantly improve customer focus, employee commitment and productivity, speed at which decisions are made, and confidence in the direction of the integrated business,” states PWC (PWC 2020).[9] There must be top down support – within both the parent and newly merged entity – to facilitate effective change management.

When integrating a new partner, we plan an executive roll out where our senior leadership meets face-to-face with the senior leadership team of the newly merged organization. All of the significant players in the integration (AP, purchasing, materials management, GL, charge master, etc.) conduct presentations explaining the current state of operations and what to expert in terms of changes during go-live and beyond.

By educating senior leaders on the changes, they can in turn educate the direct reports in their divisions. When an organization is merged, its employees see it as a massive change by an unknown entity and worry what part of their culture and identity will survive. Therefore, it is critical to gain the support of the new partner’s leadership so they will, in turn, champion your work among their employees.

Next, the leadership team from HMHN performs the same presentations to the newly merged entity's department heads, managers, and supervisors. VPs and directors from HMHN present as well, offering peer-to-peer perspectives on the merger, and answering questions.

What follows is a broad campaign in collaboration with the newly merged entity's communications department to reach employees. This typically includes communications vehicles such as posters, table tents in the cafeteria, screen savers, tag lines on the purchasing department email signatures, and email blasts to inform them what changes are coming and when they will occur. This is followed by a question and answer session for anyone who wants to know more.

Best Practice Tips: Marketing, Publicity and Communication

- Schedule and lead educational sessions for staff and management (managers, directors, executives, presidents).
- Formal roll out to senior leadership and executives (Helps with getting end user buy-in).
- Fine tune presentations with varying levels of granularity, need to know basis. Tailor to specific audiences.
- Develop and distribute training communication plans (e.g. manager's meetings, intranet, posters, table tents, screen savers, flyers, e-mail blasts, employee rounding, open houses etc.)
- Create a SharePoint site and make it accessible to all employees. Confirm that the access domain or storefront is available to all locations and buildings.
- Publicize benefits of new system (e.g. automation).
- Communicate and train on policy changes (e.g. increased purchasing limits, changes to approval workflow).
- Identify super users or key individuals and hold sessions to influence their support.

An important part of this "media blitz" is to reach employees from top to bottom and educate them on how the transition to our integrated ERP network with affect them. We have experienced cases where employees have refused to acknowledge that the change will affect them, which resulted in significant operational ramifications.

When merging with one hospital, employees did not fully embrace the change. Lacking confidence that the ERP go-live would be successful, they purchased additional supplies to serve as a buffer. This later became problematic for both the end user and the implementation team.

We had assembled a large implementation team and post go-live support team that conducted three weeks of on-site training, two weeks of post go-live support, and rounding to all departments to answer questions, but many employees did not take full advantage of these resources. Weeks later after the stockpiled supplies were gone and they had no choice but to use our ERP platform. When they realized they needed education, but our team was already gone. As a result, we had to circle back around and provide additional education.

The lesson learned is that you must instill confidence in the merged hospital's employees that you are the experts, you know what you are doing, and the implementation will be a success – there is no going back. We tell them not to order a large back-up stock of supplies, but rather take advantage of the on-site training and post go-live support in order to learn how to use the new system, because those resources are temporary.

Education and Training

Thorough pre-planning is critical to training success. In order to determine how many days you will need to train and how many classes per day, take the number of people who will be requestors and requestor/approvers and divide that number by the number of seats available. If you are uncertain of the number of users that will need training, use the rule of 33 percent for gross calculations of demographics for new startups (one-third of the total employee base will need to be trained). The best method is to gather actual user statistics from live operations in place at all facilities.

Be sure to add additional students to the forecasted number of trainees if you are implementing approval workflow. A common error is to only look at requisitioners and not factor in the number of people serving in the approval only role.

The parent health system should perform a thorough assessment of training resources available, such as the number of training rooms, locations, on-site or at off-site locations, number of seats, type of computers, availability of dual monitors and a large screen monitor, transportation provided by network to off-site locations, etc.

Best Practice Tips: Education and Training

- Outsource for trainers if needed. Be realistic: Can existing operations be maintained during development, training, and post go-live support utilizing existing staff? Determine the impact and be comfortable with the risk or take steps to minimize negative effects.
- Book rooms immediately.
- Prepare training packets to be accessible to all trainees, make a limited number of printed copies available at the end of the class. Stress the value of trainees going to a SharePoint site to retrieve their manuals, impress the fact that the manuals are updated regularly and printed copies become outdated quickly. Alter training documents if needed by site type (e.g. acute care facility, physician office, long term care provider, home care, joint venture, or realty management).
- Schedule specialty training for areas such as operating rooms (OR), wound care, cardiac catheterization, special procedures, and other areas incorporating significant processes different from the mainstream departments.
- Special addendums may also be required if some locations utilize just in time (JIT) or low unit of measure (LUM) replenishment.
- Online sign up for classes/training sessions along with tracking attendance is critical. Use educational services and online hospital training software currently in place to track mandatory education.
- Provide a class satisfaction questionnaire at the end of each session. This provides a mechanism for continuous improvement to the process based on student feedback. Remember to be sensitive to all learning styles.

Training facilities must be adequate based on numbers to be trained. If you do not have adequate space, develop an alternate plan by converting auditoriums and/or meeting rooms into useable space short term. Other options include renting trailers and converting them to training rooms or renting rooms from local hotels or corporations for limited sessions, as needed.

It is critical to adjust the training presentations to meet the needs of different audiences. When it comes to senior leadership, training sessions should convey what is being accomplished in an effort to gain their support, buy-in, and cultivate interest among their staff, as opposed to trying to make them experts in the software itself.

The parent health system should identify "super users" in each location who will serve as implementation champions, determine the resources required for implementation success, and serve as a single point of contact for support. Approvers still need to take the training classes even though they will serve in a modified role, namely reviewing and remedying deficient requisitions.

In-Source Versus Outsource: The parent health system will need to determine whether it has the resources in-house to educate and train employees of the newly merged entity on the new ERP system and related processes, or if they must supplement their team with outside resources.

A thorough assessment of your temporary help needs should be conducted in conjunction with the system's internal IT team. Be careful to not "overbuy" talent. If the outsourced employees will only be responsible for training on your system, then their in-depth knowledge of programming and systems operations may not be desirable. Be prepared to spend at least one week training agency people prior to training and go-live.

When we were faced with going live on the ERP platform across six acute care hospitals, we leveraged consultants as an educated workforce that we could rent or buy, and we trained them through a train the trainer program. They went out amongst the six hospitals and held classes to get employees up to speed.

These initial implementations relied heavily on on-site classroom training sessions. This is costly in terms of physical resources, such as classroom or training rooms, along with salaries of

the students and trainers. We needed to find an internal solution moving forward to educate and train newly merged entities on the ERP platform.

Leveraging Technology for Efficient and Cost-Effective Training: Our solution has been a blend of resources to meet the needs of the end user. We have a healthy mix of on-site live classroom education and recorded training sessions that can be viewed from the desktop at any time, guided webinars, printable guides, and self-development tools similar to our ERP system vendor's user productivity kit, which is a self-guided ERP-based training tool.

Presently we employ the kit, recorded sessions and guided webinars for the majority of training for new users. On-site live training sessions are reserved for the last four weeks prior to go-live. We also hold on-site, post go-live support for a period of two weeks.

Benefits of a Self-Guided ERP-Based Tool

- Drive user adoption and productivity: Capture and disseminate critical organizational process knowledge with multiple learning methods and just-in-time performance support.
- Streamline implementation: Pre-built model business process documents and pre-built content for ERP system applications speed time to deployment.
- Implementing new enterprise applications or upgrading to new releases.
- Documenting business practices for various compliance initiatives.
- UPK offers a moderate level accomplishment and proficiency testing.

By leveraging the kit, we were able to bring 9,000 employees live on our ERP system's shopping cart environment, within six months. We can configure the kit to what we want to train and educate. At the end of each module the user is administered a test to measure proficiency.

On average the majority of students enrolled in our program took advantage of a minimum of one classroom session and multiple access points to other mediums offered. Some students attended two-to-three classes based on the corporate culture, learning style, personal comfort, and past level of automation experience.

Be sure to restrict new ERP system access to only those who have been trained, and do not grant access to those who have not taken classes. This helps with post go-live support because it reduces the number of calls requiring intensive training versus simple process questions.

Go-Live Support

It is critical to develop a well thought out go-live support plan that is sustainable, keeping in mind that your implementation team will most likely return to their other duties performed prior to the project. This plan should be approximately three-to-four weeks in duration.

Establish a war room staffed with ERP software experts and knowledgeable purchasing support. Also have support staff on-site who can make constant rounds and respond to calls in person. Be sure to set up a "hotline" staffed by knowledgeable staff members who can triage support calls.

Preparing for When POs Fail: No matter how much time, effort, and resources you put into your ERP system integration POs will fail. Therefore, buyer support on failed POs is mandatory. Reach out to the vendor to clarify the reason for failures along with securing "ship to" account numbers, ordering methods, and any other related fields required by either your ERP system or EDI vendor's software. This corrective data must be entered as a correction by the internal EDI liaison for setup to avoid future order failure transmissions.

Restrict the EDI access and edit authority to a single individual, with backup and cross training, or a select group with a thorough understanding of the process. Limiting access will enable the reduction of future error due to a lack of understanding of the system or mixed interpretations of the data requirements.

POs that failed to transmit electronically but did not fail in the ERP system can be easily identified by utilizing a standard "print PO" report. Manual processing of those orders is required for that instance. These are the target vendors that need to be worked on to either restore or enter into a new relationship of automated processing.

Best Practice Tips: Go-Live Support

- Develop super user employees to assist in training and support from an internal perspective.
- Post training schedule, track registration, and track training completion (fill rate based on projected totals).
- Manage class size and trainer's attendance.
- Manage each ordering environment's webinar tutorial, user guide, and purchasing forms as available on each site's Intranet for around the clock access.
- Provide FAQ list related to the ERP system's purchasing module.
- Provide each ordering environment's webinars via email prior to class.
- Provide post go-live ERP system's purchasing module classes.
- Provide post go-live shoulder to shoulder support.
- Provide monthly webinar refresher classes.
- Provide buyer support to call vendors for "ship to" account number for facility(s) if orders fail in PO transmissions.

With new facilities having access to a single item master be aware that they will begin ordering from vendors from which they have never before ordered. This factor is the primary reason for automated POs failing proper transmission. Other failures may be related to EDI vendor accounts awaiting onboarding, approval from the vendor and proper testing of a successful transmission.

Overall Lessons Learned and Advice to Others

Below are the top lessons that we have learned at HMHN through our integration of newly merged entities' supply chains in an accelerated timeframe, as well as general advice to other health systems going through this process.

What Not to Do:

- Don't bring multiple acute care hospitals live in the same day unless you have no other option!
- Don't doubt your experience and instincts, you are the experts.
- Don't allow end users to stockpile large amounts of product in anticipation of the go-live. When they finally get to order supplies the post go-live support team will be disbanded.
- Don't modify proven methods and best practice to accommodate "special" situations.
- Don't underestimate the power of culture and the tendency to go back to the old ways.

What to Do:

- Convert the newest member to same GPO and distributor.
- No non-item file transactions - create and maintain one item master.
- Identify interfaces needed for all software, such as the EHR and inventory systems.
- Hold regular team meetings with mandatory participation.
- Secure executive support at the beginning.
- Develop a permanent team to work on implementations.
- Repeat your successes, learn from your failures.

Conclusion

The U.S. health care industry has been in a state of dramatic transition in recent years, which has only been compounded by the 2020 COVID-19 pandemic. Health systems must find ways to enhance care delivery while increasing revenue and reducing costs. A M&A can enable a health system to strategically position itself in the marketplace, broaden its care delivery network and achieve economies of scale - decrease unit costs, and improve productivity and outcomes through increased volumes (Deloitte 2017).[2]

The allure of M&A is tempting but the reality is fraught with challenges and risks. Although we at HMHN have developed a successful methodology for the integration of merged and acquired entities, it didn't happen overnight. We've made mistakes, learned from them and continue to learn with each integration that we perform. While this document contains our key learnings to date, we will continue to evolve our strategy with each future integration with the goal of continuous improvement.

As Deloitte states, while some M&A transactions can reduce costs, the results can take several years to achieve. In its survey with HFMA of 100+ health systems that had been engaged in M&A activity, approximately 40 percent of respondents said they achieved 25 percent or more of their goals, but for most it took longer than two years for improvement efforts and investments to pay off. (Deloitte 2017).[2]

Calculating savings derived from an M&A is complex. We had to maintain some of the acquired organization's software systems for three-to-four years post-acquisition to ease the transition and avoid disruption to supply chain operations, but we are now phasing out these systems, which is reducing costs.

We undoubtably achieved savings from the consolidation to one item master and one GPO contract price for products across the entire network. The GPO conversions and new pricing structures typically reduce our supply costs by 8-10 percent per acquisition.

Another area where we have achieved clear cost savings is human capital. Although we never intended to eliminate any full-time employee (FTE) positions in our purchasing department, we experienced a full 20 percent reduction of FTE staff members. The predominant reason was moving to a centralized office and the resulting commute in a very densely populated and congested state.

Ultimately, we have been able to do more with less and achieve significant savings by streamlining and centralizing supply chain operations.

I sincerely hope the documentation of our supply chain integration story and the sharing of our experiences through the AHRMM community will help supply chain leaders from other health care systems with their M&A strategies. In the spirit of collaboration, I also encourage others to share their stories of M&A integration so that we can all learn from one another and help position our industry for future success.

References

1. Kacik, A. (2019, February 23). Retrieved from Modern Healthcare: https://www.modernhealthcare.com/article/20190223/NEWS/190229993/fewer-independent-hospitals-can-weather-operating-headwinds

2. Hospital M&A: When done well, M&A can achieve valuable outcomes. (2017). Retrieved from Deloitte: https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/hospital-mergers-and-acquisitions.html

3. 2019 AHRMM Cost, Quality and Outcomes Summit Report. (2019).

4. Supply Chain Impact - Mergers and Acquisitions. (2019). Retrieved from The Balance Small Business: https://www.thebalancesmb.com/supply-chain-impact-mergers-and-acquisitions-2221426

5. How Supply Chain Will Make Kraft-Heinz Succeed (2015). Retrieved from The Balance Small Business: https://www.thebalancesmb.com/how-supply-chain-will-make-kraft-heinz-succeed-2221286

6. Eight levers for driving M&A value through the supply chain. (2020). Retrieved from EY: https://www.ey.com/en_gl/strategy-transactions/eight-levers-for-driving-m-a-value-through-the-supply-chain

Appendix

Suggested Reading

Healthcare Mergers and Acquisitions: Still a driving force (2019)
This blog post provides highlights from Hackensack Meridian Health's Summit presentation on how they developed, managed, and executed a complex ERP implementation plan across their large network of hospitals in New Jersey. Over time, multiple acquisitions led to three material management information systems (MMISs), outdated technology that needed to be phased out, and five regional purchasing departments needing consolidation into a single office to provide comprehensive reporting and budgeting.

How Bon Secours Mercy Health Optimized Supply Chain Post-Merger (2019)
This case study showcases how Bon Secours and Mercy Health used mutual vendor partners and value analysis to successfully merge and jump-start savings. Bon Secours Health System and Mercy Health completed a merger of equals in September 2018, creating one of the largest health systems in the country with 43 hospitals and over 1,000 care sites along the east coast and Ohio and Kentucky.

Healthcare M&A Presents Opportunities for Change (2016)
In this blog post, Franco Sagliocca, MBA, FACHE of Mount Sinai Health System discusses the steps they have taken to centralize processes, systems and data.
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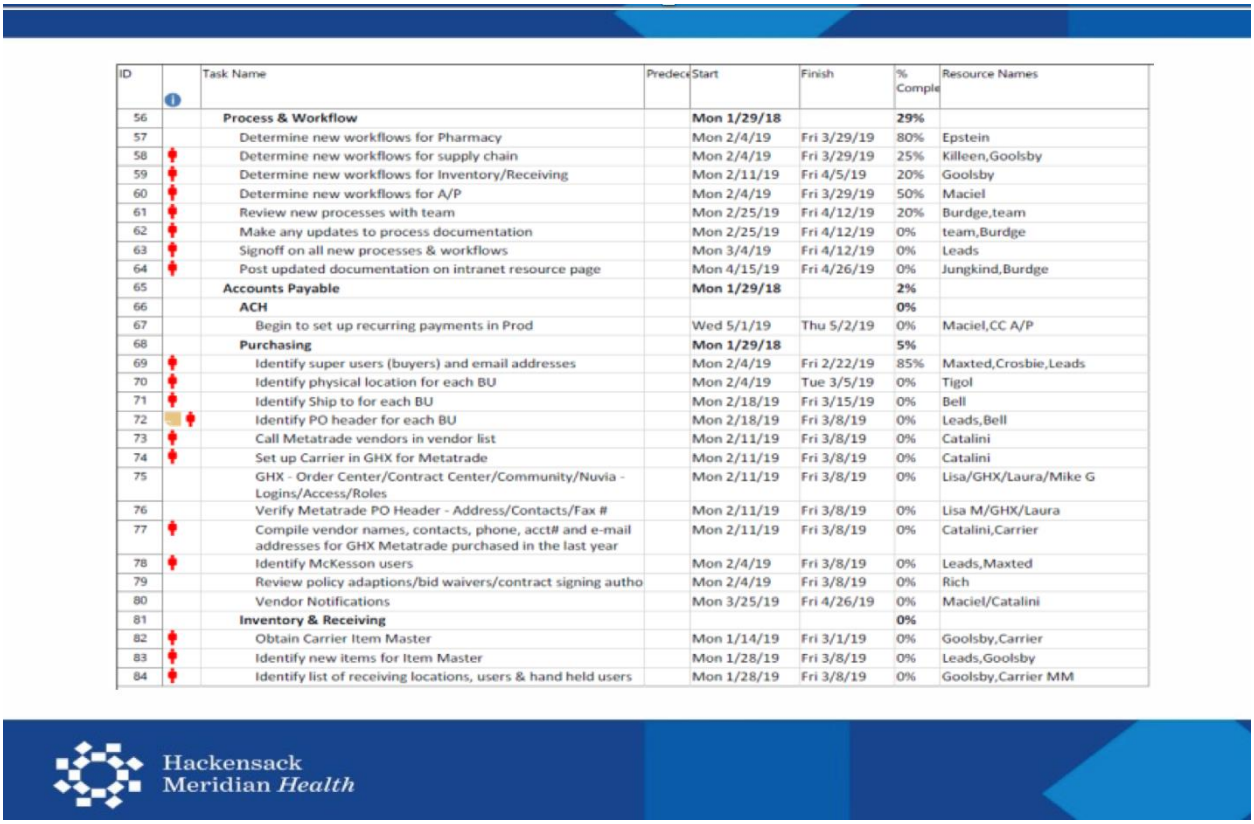
Sample Project Plan for a System-Wide ERP Implementation



ID	Task Name	Predec	Start	Finish	% Comple	Resource Names
56	**Process & Workflow**		**Mon 1/29/18**		**29%**	
57	Determine new workflows for Pharmacy		Mon 2/4/19	Fri 3/29/19	80%	Epstein
58	Determine new workflows for supply chain		Mon 2/4/19	Fri 3/29/19	25%	Killeen,Goolsby
59	Determine new workflows for Inventory/Receiving		Mon 2/11/19	Fri 4/5/19	20%	Goolsby
60	Determine new workflows for A/P		Mon 2/4/19	Fri 3/29/19	50%	Maciel
61	Review new processes with team		Mon 2/25/19	Fri 4/12/19	20%	Burdge,team
62	Make any updates to process documentation		Mon 2/25/19	Fri 4/12/19	0%	team,Burdge
63	Signoff on all new processes & workflows		Mon 3/4/19	Fri 4/12/19	0%	Leads
64	Post updated documentation on intranet resource page		Mon 4/15/19	Fri 4/26/19	0%	Jungkind,Burdge
65	**Accounts Payable**		**Mon 1/29/18**		**2%**	
66	**ACH**				**0%**	
67	Begin to set up recurring payments in Prod		Wed 5/1/19	Thu 5/2/19	0%	Maciel,CC A/P
68	**Purchasing**		**Mon 1/29/18**		**5%**	
69	Identify super users (buyers) and email addresses		Mon 2/4/19	Fri 2/22/19	85%	Maxted,Crosbie,Leads
70	Identify physical location for each BU		Mon 2/4/19	Tue 3/5/19	0%	Tigol
71	Identify Ship to for each BU		Mon 2/18/19	Fri 3/15/19	0%	Bell
72	Identify PO header for each BU		Mon 2/18/19	Fri 3/8/19	0%	Leads,Bell
73	Call Metatrade vendors in vendor list		Mon 2/11/19	Fri 3/8/19	0%	Catalini
74	Set up Carrier in GHX for Metatrade		Mon 2/11/19	Fri 3/8/19	0%	Catalini
75	GHX - Order Center/Contract Center/Community/Nuvia - Logins/Access/Roles		Mon 2/11/19	Fri 3/8/19	0%	Lisa/GHX/Laura/Mike G
76	Verify Metatrade PO Header - Address/Contacts/Fax #		Mon 2/11/19	Fri 3/8/19	0%	Lisa M/GHX/Laura
77	Compile vendor names, contacts, phone, acct# and e-mail addresses for GHX Metatrade purchased in the last year		Mon 2/11/19	Fri 3/8/19	0%	Catalini,Carrier
78	Identify McKesson users		Mon 2/4/19	Fri 3/8/19	0%	Leads,Maxted
79	Review policy adaptions/bid waivers/contract signing autho		Mon 2/4/19	Fri 3/8/19	0%	Rich
80	Vendor Notifications		Mon 3/25/19	Fri 4/26/19	0%	Maciel/Catalini
81	**Inventory & Receiving**				**0%**	
82	Obtain Carrier Item Master		Mon 1/14/19	Fri 3/1/19	0%	Goolsby,Carrier
83	Identify new items for Item Master		Mon 1/28/19	Fri 3/8/19	0%	Leads,Goolsby
84	Identify list of receiving locations, users & hand held users		Mon 1/28/19	Fri 3/8/19	0%	Goolsby,Carrier MM

Testing Guidelines and Best Practices

- Test all active functional module environments in the ERP software for full functionality in a “cradle to grave” scenario as supported by both entities. Modules:
    - Tangible: Goods that can be received, consumed, and returned for credit.
    - Intangible: Contracts, services, labor, and repairs.
    - Capital: Durable goods valued at or above a set dollar threshold with a useful life greater than three years.
- Restrict initial testing for desired outcomes to experienced people only (reduces false failures versus end user errors).
- Test for complete transmissions via EDI and email/e-Fax (all the way through vendor acceptance), including invoicing and vouchers.
- Test all “ship to” locations and verify header accuracy, including facility name and address, AP invoicing instructions, and comments.
- Test new users for the ability to create requisitions successfully in their respective cost centers.
- Test approval workflow and mapping by cost center.
- Test for complete linearity also termed “req to check” (test the entire workflow including item build, Req to PO, receiving, logistics of item delivery, posting payment, feeding to the GL).