Transforming
Healthcare
Together®

Lessons from Phase 1

Premier GLN Transaction Program

PREMIER

Global Location Number Implementation

"On your way to better supply chain interactions"

Global Location Number Implementation

Executive Summary

Reliable information about delivery location is essential for proper delivery of *the right healthcare product to the right location*, a vital component in ensuring patient safety. The U.S. healthcare industry has declared standards from GS1 as its choice for describing basic information needed to improve patient safety, reduce costs and enable an efficient supply chain, establishing an adoption date of Dec. 31, 2010 for the GS1 Global Location Number® (GLN®)

The Premier healthcare alliance's Purchasing Partners division endorsed the GS1 system of data standards and has developed programs to help its provider members and contracted suppliers implement and transact using these standards in preparation for the industry-established adoption sunrise dates. In mid-2009 Premier launched the **GLN Transaction Program** in an effort to outline the process for GLN implementation for its member hospitals.

The objectives of the Premier GLN Transaction Program were to:

- Better understand the use of GLN Registry for Healthcare®
- Identify the steps to GLN implementation
- Identify challenges in implementation
- Share lessons learned

Participants

In the program, early adopter provider organizations were paired with supplier partners to discover and document the steps necessary for successful GLN implementation. Participants in the first phase were:

- Geisinger Health System and Medline Industries

- Aurora Health Care and Baxter International
- Mission Hospital and Owens & Minor

Participants shared their experiences and lessons they learned with others in order to accelerate GLN adoption by the healthcare industry as a whole.

Lessons from Phase 1, Premier GLN Transaction Program

Premier held the program kick-off with a web-based meeting in May 2009, and the first GLN transaction took place in August 2009. Participants determined that preparing to implement the GLN can be done right now and in short order, with immediate benefits -- regardless of other implementation challenges that may exist.

Participants identified several steps of GLN implementation that were consistent across the board, and that are detailed in the program summary. They include:

1. Reconciliation with GPO Roster.
2. Establishing maintenance control of Registry information.
3. Establishing proper GLN hierarchy strategy.
4. Communications with GPO to align GLN hierarchy.
5. Cleansing and reconciliation of "ship-to" locations with suppliers & exchange providers.
6. Uploading of GLN to provider information systems; make necessary changes to enable EDI transactions to include GLNs and replace custom numbers.
7. Begin transacting using GLN.
8. Identifying challenges and establishing work around solutions when appropriate.
9. Staying involved.

Among the overall lessons learned:

- Participants agreed that implementing the GLN is **completely achievable** within a reasonable timeframe.

- Participants found that the **work required to support GLN implementation is largely front-loaded**.

- All participants felt that providers should **start small and basic**—work on Level 1 in the GLN Registry (parent organizations) and establish the correct "ship-to" locations.

- Providers also agreed **that establishing a process for maintaining** GLN information in the **Registry is extremely important**.

- Providers also felt that **selecting a strong, customer-oriented supplier** partner for the initial GLN implementation is important.

- Participants felt strongly that **hospitals should drive GLN implementation** with supplier partners.

- Providers felt that the exercise in **preparing for GLN implementation was valuable and important**, and overwhelmingly felt that they "were ready to go."

- All participants felt that providers should get started with GLN implementation right away, and, by doing so, the **mystique involved with GLNs will become manageable**.

- Participants agreed that **implementation can and should occur in a phased approach**.

- **Stay educated and get involved** in GS1 Healthcare US GLN workgroups or Premier workgroups.

Conclusion

Premier member hospitals and contracted suppliers involved in the initial phase of the Premier GLN Transaction Program will continue to build upon the experiences and lessons learned. Premier is expanding its GLN Transaction Program to include additional member and supplier partner pairings. Healthcare providers and suppliers should begin preparing for the 2010 GLN Sunrise now.

Lessons from Phase 1
Premier GLN Transaction Program

Introduction

Many large industries, including the retail, grocery and mass merchandise industries, have been using GS1 data standards for identifying locations and products in their transactions for several years, and, as a result, have realized significant operational efficiencies in their supply chains. The U.S. healthcare industry has declared standards from GS1 as its choice for describing basic information needed to improve patient safety, reduce costs and enable an efficient supply chain, and has thus established adoption dates of Dec. 31, 2010 for the GS1 Global Location Number® (GLN®) and Dec. 31, 2012 for the GS1 Global Trade Item Number® (GTIN®).

The Premier healthcare alliance's Purchasing Partners division has also endorsed the GS1 System of data standards, and has developed programs to help its members implement and transact using these standards in preparation for the industry-established adoption sunrise dates. With GLN first on the horizon, in mid-2009 Premier launched the **GLN Transaction Program** in an effort to outline the process for GLN implementation for its member hospitals. The GLN is a globally recognized identification number used in the GS1 System to identify legal entities, trading partners and customer locations in electronic commerce activities. In the program, early adopter provider organizations were paired with supplier partners to discover and document the steps necessary for successful GLN implementation. Participants then shared their experiences and lessons they learned with others in order to accelerate GLN adoption by the healthcare industry as a whole. Participants determined that preparing to implement the GLN can be done right now and in short order, with immediate benefits -- regardless of other implementation challenges that may exist.

2010 GLN Sunrise

The goal of the 2010 GLN Sunrise is to use standardized location identification (GLNs) by December 2010, which means:

- GLNs are assigned by location owners.
- GLNs are used in appropriate business transactions and processes between trading partners.
- GLN hierarchy is defined and maintained by location owners.
- GLN Registry for Healthcare® is used to facilitate correct location identification.

For more information about the industry sunrise dates for both the GLN and GTIN, go to www.gs1us.org/hcsunrise.

Background

Reliable information about delivery location is essential for proper delivery of *the right product to the right location*, which is a vital component in ensuring patient safety. Electronic medical records, automated ordering systems and other healthcare IT systems all require reliable location identification and information to improve patient safety and support patient care.

Accurate location information is a necessity for all supply chain partners, including group purchasing organizations (GPOs). If a healthcare organization is associated with a GPO, it is crucial that the GPO's roster of hospitals contains all of the necessary location information in order to ensure that accurate, consistent location information is being sent to distributors and manufacturers. GPOs may also encounter problems in managing location information in their roster of hospitals. For example, their roster may not reflect the difference between *corporate identity* and *physical location*. In addition, it may not have precise location information for each of the various hospitals affiliated with the healthcare parent organization or for each of the various departments within a hospital. If the roster is not accurate, a hospital may mistakenly receive rebates meant for other, similarly named facilities or rebates may be applied to the incorrect receiving location within the hospital. As a result, rebates and claims can be delayed or even lost.

Although healthcare constituents across the supply chain have created their own proprietary numbering system[s] in an effort to solve some of these problems, doing so created new problems. So many location number systems were created that maintaining all of the various numbers became difficult to manage. In addition, providers now had to create and manage maps between all of the various location identification numbers in their systems. The end result has been an error-prone, inefficient approach to location identification that has done little to promote patient safety and drive supply chain efficiencies.

Over the past four years, numerous healthcare organizations, including providers, GPOs and industry associations, have called for industry implementation of a common, universal and global set of data standards for location and product identification, as well as a system to synchronize this data. In addition, with the passage of legislation in the fall of 2007, the U.S. Congress mandated the use of a unique device identification system

Advantages of the Global Location Numbers

Without a standardized approach, supply chain partners often assign their own proprietary location identification numbers resulting in numerous numbers to manage and maintain for the same location, creating inefficiencies and confusion related to party/location information in the supply chain. The use of GLNs avoids those problems and provides companies and healthcare organizations with a method of identifying locations that is:

- **Simple:** an easily defined data structure with integrity checking that facilitates processing and transmission of data.
- **Unique:** GLNs are globally unique.
- **Multi-sectoral:** the non-significant characteristic of the GLN allows any location to be identified for any company and organization regardless of its activity anywhere in the world.
- **Global:** implemented around the world and supported by GS1 US and the international network of other GS1 Member Organizations, covering more than 100 countries, in the local language.

For more information and details on GLN benefits to providers or suppliers, see the GLN Tool Kits published by GS1 Healthcare US, at: www.gs1us.org/healthcare.

Ongoing industry pilot programs are showing that successful adoption of the "three Gs" -- GLN, GTIN and the Global Data Synchronization Network® (GDSN®) -- is achievable in the near term with the potential for immediate value. Many provider organizations are also requiring their manufacturer partners to incorporate these identification standards in order to secure contracts.

Premier announced in July of 2008 that suppliers that sign its national contracts must adopt GS1 standards within five years, starting first with the GLN in 2010. Premier decided to issue this requirement based on years of input from member hospitals and its own participation in industry standards efforts. Premier also issued the requirement in order to help accelerate industry-wide implementation of the standards (*see timeline and roadmap graphics*).

Premier's iterative approach toward comprehensive standards adoption:

2008 – Launched outreach and education program for providers and suppliers; modified contract to include requirements for standards compliance.

2009 – Requested that providers and suppliers recognize GLNs and that the suppliers begin to register GTINs for their products.

2010 – Champion recognition and use of GLN by all providers and suppliers.

2012 – Champion use of GTIN for all products from all suppliers, and the use of GTINs by all providers.

As a national health alliance, Premier believes it has a significant role to play in the acceleration of standards implementation. It believes implementing these standards will help its member hospitals improve patient safety and reduce costs. To that end, Premier launched the GLN Transaction Program in May 2009.

GLN Transaction Program

GLN provides globally unique identification for a functional entity (such as a hospital pharmacy or accounting department). Participants in the Premier GLN Transaction Program share the belief that the GLN will provide a new and better way of conducting supply chain business, and are committed to using GLN in their daily transactions.

The objectives of the Premier GLN Transaction Program were to:
- Better understand the use of GLN Registry for Healthcare®
- Identify the steps to GLN implementation
- Identify challenges in implementation
- Share lessons learned

The following providers and supplier partners were paired to participate in the Premier GLN Transaction Program:
- Geisinger Health System and Medline Industries
- Aurora Health Care and Baxter International
- Mission Hospital and Owens & Minor

Premier held the program kick-off with a web-based meeting in May 2009, and the first GLN transaction took place in August 2009.

The Single Source of Truth:
The GS1 US GLN Registry for Healthcare®

The GLN Registry for Healthcare® is a directory of healthcare and healthcare-related facilities in the U.S., with corresponding Global Location Numbers (GLNs). Members of this registry,

which include hospitals, healthcare manufacturers and distributors, and other interested parties, can access an updated list of industry manufacturers, distributors, retailers, hospitals, clinics and mail-order pharmacies, developed to ensure the accuracy of their supply chain activities.

As a service to its members, Premier has allocated GLNs to providers, including all owned facilities and affiliates. There are more than 70,000 locations registered to Premier providers in the Registry. As a result of this effort, the hierarchy used in the Registry matches the structure used in the Premier member roster, Premier's official list of all members' and associated addresses. Generally:

- *Level One* is the Main Parent, the location that actively receives products or the corporate entity used in Premier records.
- *Level Two* is any entity that reports directly to the Main Parent.
- *Level Three* is other buildings and/or the subordinate departments of Level Two.
- *Level Four* is an additional level that can be used for desktop delivery or Just in Time ("JIT") locations.

The GLN Registry for Healthcare®

The GLN Registry for Healthcare® provides a comprehensive list of healthcare and healthcare related facilities in the United States, with corresponding Global Location Numbers (GLNs). The GLN Registry serves as the "single source of truth" for healthcare location information enabling subscribers to access up-to-date, reliable location information for industry manufacturers, distributors, retailers, hospitals, clinics, and retail and mail-order pharmacies to improve the accuracy of their supply chain activities.
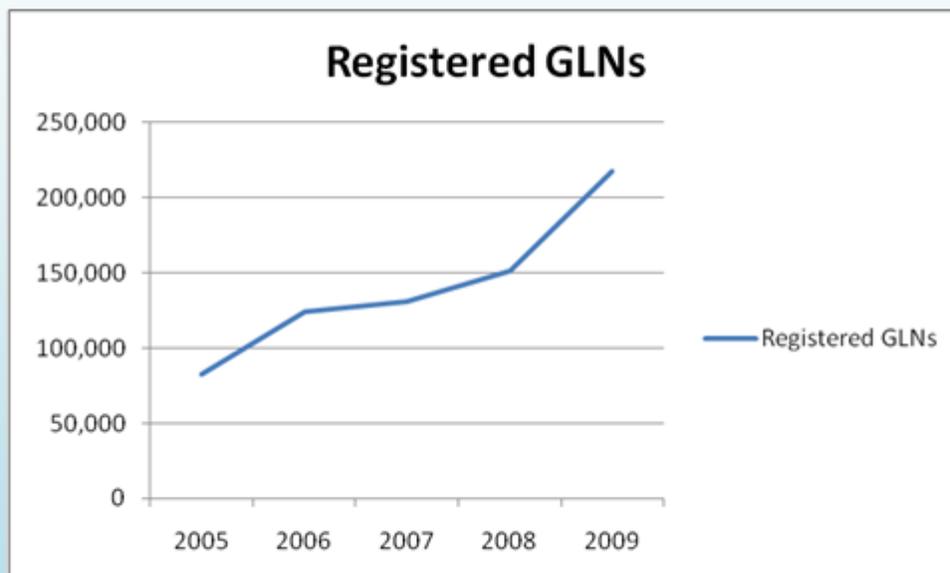
There are now more than 220,000 registered healthcare GLNs (March 2010), up from 83,000 in 2005. The industry is preparing for the 2010 GLN Sunrise. Information about the GLN Registry can be found at: www.gs1us.org/glnregistry.

Steps to GLN Implementation

Though the GLN implementation experience differed between the hospital/supplier pairings in the Premier GLN Transaction Program, there were several steps that were consistent for all the participants:

1. **Reconcile with GPO Roster.**

   Though Premier had registered GLNs on behalf of its membership, provider participants found that the information housed in the Registry was not always consistent with how they themselves would ascribe GLNs for their organization. Providers worked to cleanse and reconcile the information in the Registry – either directly with the Registry or with Premier. The process resulted in an accurate GLN at the highest level, with that information matching with the Premier Roster. Providers in this program reported that this process took approximately five to eight hours.

   > *"You should cleanse your location data before you build your GLN hierarchy. No one knows your hospital system like you do, so make sure your GPO and the GLN Registry are in sync with how you want your organizational structure to look like, and have them make corrections if needed."*
   >
   > *-- Stuart Wooster*
   > *Aurora Health Care*

2. **Take maintenance control of Registry information.**

   As hospitals open and close, new affiliations are added or offices move, GLNs will need to be updated. Participants recommended that someone on staff be assigned to either work

with the GPO to keep the Registry and GPO Roster information up to date and current, or self-maintain the information.

3. **Establish proper GLN hierarchy strategy.**

   Once you have accurate GLNs assigned at the highest levels (parent location), you'll need to establish the proper hierarchy of locations in the Registry, including affiliated clinics, laboratories and other facilities. Keep in mind, when making assignments, that GLNs can be used for many business purposes, including, but not limited to: GPO rostering, distributor sales tracings and e-commerce transactions.

4. **Communicate with your GPO and those organizations enabling your e-commerce transactions to make sure your GLN hierarchy is in alignment across all parties.**

   This is an important step to ensure that GPO reporting is accurate, rebates are sent to the correct facility at the correct time, and orders sent via electronic commerce have accurate information for shipping and other supply chain requirements.

   > *"By using a consistent numbering and naming convention, such as the GLN, providers can be assured purchases that qualify for rebates will be accurately captured with rebate checks going to proper locations."*
   >
   > *--Pat Smith*
   > *Mission Hospitals*

5. **Cleanse and reconcile your "ship-to" locations.**

Early coordination with your trading partners and e-commerce/exchange provider is **critical** to this process. Without proper coordination between all parties in the transaction process, your transactions could fail.

Select supportive supplier partners that are ready to meet your GLN needs. Review your "ship-to" locations with participating suppliers to ensure GLNs in the suppliers' systems are appropriately mapped to the existing supplier-assigned account numbers for those "ship-to" locations.

Once the mapping has been validated and cleansed, communicate these "ship to" locations promptly to your exchange provider who will help ensure the appropriate registering, mapping, and cross references for accurate transactions.

6. **Upload GLN to your MMIS or ERP system.**

Your MMIS or ERP system may require an upgrade or patch to enable the use of GLNs in transactions. It is highly recommended that you confirm your system's requirements with your vendor early in this process to ensure that your efforts will be successful.

7. **Begin transacting using GLN[1]**

Understand the method by which your supplier conducts e-commerce and how it works with your system before you begin transacting with the GLN. There is no "one size fits all" approach, with each

implementation participants will take lessons learned for the next one.

By working together early in the process, your organization, trading partners, system vendor, and e-commerce/exchange provider can take the necessary steps to accurately represent your "ship to" locations using GLNs, helping ensure your transactions process without errors or the need for manual intervention.

> *"We plan to keep working with our provider customers, implementing GLNs in a controlled manner. We plan to make system changes to support the GLN for any customer wishing to use it, and in the meantime are maintaining methods for GLN and non-GLN customers."*
>
> *--Dave Rolston*
> *Medline*

8. **Identify challenges and establish work around solutions when appropriate.**

Participants experienced challenges in two main areas: systems which required upgrades or patches to allow the use of GLNs in EDI, and the need for dedication and close communication among all parties involved in transacting purchase orders: provider, supplier, MMIS vendor and e-commerce/ exchange provider. Barriers not encountered, but considered possible by participants, included lack of available resources to support upfront time involved in cleansing and reconciling account information with GPO or supplier or MMIS vendor, e-commerce/exchange provider partners.

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[1] Due to specific implementation challenges, not all pairings were able to conduct transactions.

"While there can be challenges along the way, GLN implementation is not rocket science – it only takes a commitment to a better way of doing things, open communications and support of your trading partners."

--Deborah Templeton
Geisinger Health System

9. **Stay involved and contribute to the growing healthcare GLN knowledge bank.**
Take advantage of existing resources, including educational programs and materials from organizations such as your GPO, your MMIS/ERP Vendor, your e-commerce/exchange provider, GS1 Healthcare US, and industry organizations such as AHRMM, SMI, and MDSCC..

Contact Premier

For questions related to Premier's industry standards initiatives, please email datastandards@premierinc.com to reach the following contacts:

- **Joseph Pleasant**
  Senior Vice President and Chief Information Officer
- **Marla Weigert**
  Group Vice President, Contract Management and Administration
- **Karen Boswell**
  Vice President, Data Management
- **Lalit Thakur**
  Director, Master Data Management
- **Carl Gomberg**
  Business Analyst, Product Information

GLN Transaction Program Experience

Pairing 1: Geisinger Health System and Medline

	Geisinger Health System	Medline
Organization Information	One of the nation's largest IDNs. Serves more than two million residents in central and Northeast Pennsylvania. Recognized as on the forefront of the electronic health records innovation. www.geisinger.org	Nation's largest privately-held national manufacturer and distributor of healthcare supplies and services. www.medline.com
GLN Transaction Program participants	Deborah Templeton, Vice President, Supply Chain Services Darrel Dudeck, Supply Chain System Analyst	Dave Rolston, Vice President, eBusiness
Relevant systems information	Lawson v. 9.0.0.4 for MMIS. Contains functionality that allows for GLN usage	SAP ERP, direct EDI with Geisinger
Transaction relationship	Transacts directly with its distributors and some med/surg manufacturers	

Geisinger uses a central sourcing model, in which most of the network's med/surg supplies are delivered to centralized locations, and then are distributed internally by Geisinger. Geisinger enumerated its GLNs at the "ship-to" locations (central sourcing), and reconciled this information with both Premier and Medline. Geisinger processed its first order to Medline using the GLN on August 17, 2009, and by October 5, 2009, had worked out all elements of their process. They are successfully using the GLN in all Medline orders (850) and order acknowledgements (855), with the correct products being received in the correct locations.

Currently, Geisinger processes more than 15 purchase orders each day with Medline, some containing hundreds of line items. Soon Medline EDI invoices (810) to Geisinger will also include the GLN.

Because of GLN implementation, Geisinger's Deborah Templeton is more confident in flow and accuracy of data exchange, and the hospital's ability to get the right product to the right place. "With the GLN in place, we are reaping the benefits of using consistent location identification, including streamlined communications, more reliable product shipments and cleaner business documents. In addition, through the program, we've been able to develop a GLN adoption approach which we can now leverage with our other suppliers," she said.

Templeton acknowledged that while many providers and suppliers may be reluctant to change their account numbering methodology due to "fear of the unknown," once the initial upfront work is completed and the first trading partner is onboard with GLN implementation, "you've made it that much easier for the next

supplier relationship. This will become a cookie-cutter process. It will get easier and easier."

Medline's Dave Rolston agreed, and stated that, although not all processes may be in place for each trading partner to transact with the GLN, "don't let 'perfect' get in the way of 'good'. Keep it simple! Starting small, and with one trading partner at a time, the industry will be able to get this done, and will be able to surmount any barriers to implementation."

Medline is making some enhancements to its ERP system to support GLNs enterprise-wide, but started with a tactical type solution so they could get started using GLNs more quickly.   Medline used this method to cross reference its customer "ship-to" data with the customer GLN. According to Rolston, this process will work for each hospital that wants to implement GLN during 2010, while also serving the needs of hospitals that are further behind in GLN implementation. "Practical experience allows us to make the right kind of enhancements to our ERP for long term use and support of the GLN."

At the early stage of GLN implementation, both Geisinger and Medline found that the actual preparation for GLN usage has many benefits, including:

- Cleansed master data
- Strengthened supplier and GPO relationship with streamlined communications
- Confidence in the information the GPO and supplier partner has for "ship-to" locations
- Established a replicable GLN preparation process that can be used for the next trading partner

Key experience takeaways:

- Take control and clean up your hierarchy in the GLN Registry for Healthcare® as early in the process as you can.

- Communicate and plan with your vendor partners frequently during the process.

- It is better to try things on a smaller scale and grow from there.

Pairing 2: Aurora Health Care and Baxter International

	Aurora Health Care	Baxter International
Organization Information	Wisconsin integrated care system. www.aurorahealthcare.org	Global, diversified healthcare company. Manufactures products in 26 countries. www.sustainability.baxter.com
GLN Transaction Program participants	Stuart Wooster, Manager, Corporate Purchasing	Barb Zenner, Senior Project Manager
Relevant systems information	Internally developed MMIS	Converting globally to JDE 8.12 (U.S. target is July 2011)
Transaction relationship	Sends/receives orders via EDI through GHX exchange	

Aurora currently uses a custom, homegrown materials management information system (MMIS), and transacts orders via GHX. Aurora's MMIS system is unique in that it uses a customized electronic communication format, which does not make it possible to currently transact using GLNs via GHX. As a result, Aurora has taken other steps to prepare for GLN implementation readiness, including:

- Incorporated the GLN field in Requests For Proposals to suppliers
- Worked with Premier to ensure GLN fields are in the GPO Roster and an update process is established
- Concluded that Aurora will utilize GLNs for each "ship-to" address that appear on Purchase Orders
- Chose the format for outbound orders that includes both the GLN and the pre-existing account number based on guidelines in the GHX's document "Using GLNs with GHX", a supplement to the GS1 Healthcare US GLN Tool Kit.
  (*Note: GHX has published a tool kit and other materials for trading partners that plan*

to use the GLN. More information can be found at :
http://www.ghx.com/65boutGHX/IndustryStandards/tabid/827/language/en-US/Default.aspx)

Aurora worked with Baxter to review all existing account numbers, eliminating outdated or duplicate numbers so that both organizations had the correct facilities listed. In addition, Aurora confirmed the GLN data in its Premier roster. Aurora opened a new hospital in March 2010, is preparing for a second new hospital in October 2010 and is proactively ensuring GLNs are assigned prior to launch.

"I strongly advocate that providers assign GLNs to their current 'ship-to' locations, the places where supplies are delivered from the supplier," said Stuart Wooster at Aurora. "For success in implementation, you need to keep things as simple as possible, and prioritize how you will assign GLNs. Wait until you have a good understanding of GLNs and the hierarchy before assigning GLNs to every delivery location, such as

nursing stations, bins and other supply locations."

Wooster adds that communication throughout the GLN implementation process is vital. "This is an important industry initiative and, though you may run into challenges, in the end it is all about patient safety. This is an effective way that we in the healthcare supply chain can enhance the quality – and reduce the cost – of care for patients."

Baxter's Barb Zenner expects that the greatest benefits GLN can provide to suppliers are in the areas of reporting and roster management, as well as time-savings associated with tracing and chargeback processes. "For the best results early on, providers should start small … only using GLNs for shipping locations initially. Hospitals and suppliers need to train their staff on GLN, and avoiding errant processes. Gone should be the days of setting up one-off account numbers based on a specific department (attention line) in the hospital."

Both Zenner and Wooster agreed that GLN implementation provides an opportunity to cleanse account information and establish a go-forward process for managing the GLN in a one-to-one relationship approach. "While Baxter can accommodate GLNs today in our current system via a cross reference table for account numbers and GLNs, our ERP upgrade will include unique fields for the GLN and for the GTIN, promising more streamlined processes and a quicker recognition of benefits," said Zenner.

Key experience takeaways:

- Make sure your roster update process is robust and include the GLN on all RFPs to accelerate adoption.

- Wait until you have a good understanding of GLNs and the hierarchy before assigning GLNs to every delivery location.

- Work with your suppliers, your MMIS/ERP vendor and your e-commerce/exchange provider as early as possible to ensure that your system and partners are ready to conduct transactions.

Pairing 3: Mission Hospital and Owens & Minor

	Mission Hospital	Owens & Minor
Organization Information	Regional leader in advanced medical care for Western North Carolina. www.missionhospitals.org	Leading distributor of med/surg supplies to the acute care market. Leading provider of supply chain management solutions with annual revenue of over $7.2 billion. www.owens-minor.com
GLN Transaction Program participants	Pat Smith, Materials Manager	Sang Chong, Enterprise Architect
Relevant systems information	MMIS is Lawson v.8.1.9.0	Custom application (currently in process of being upgraded)
Transaction relationship	Sends/receives orders via EDI through GHX exchange	

Mission Hospital would like to simplify its electronic ordering process by having one common number for all of its vendors and suppliers. "If a vendor knows me by a single number today, an account number they assigned, I initially thought we should be able to simply change that number to my new GLN and move forward. Outside of system field size limitations, I wasn't sure why it had to be more complicated than that," Smith said.

Unfortunately, Mission was not successful in placing an order using a GLN during the course of the GLN Transaction Program. Smith discovered that while it is important to keep things simple, it is also important not to oversimplify expectations either given the multi-layered nature of today's healthcare supply chain.

MJ Wylie, Director of Global Data Standardization for GHX reflects, "This is another reason as to why it's so important to communicate early and often among all participants; supplier, MMIS vendor and your ecommerce/EDI partner. The complexities will lessen and the rewards increase."

Smith is not waiting for all the systems to line up before getting his GLNs ready. "It is extremely important to get started, and identify the issues you will encounter, and spend some time creating solutions for those," he said. Early in the program, Mission spent eight hours a week for about a month on the GLN implementation process, including time spent on becoming familiar with the GLN Registry.

"We are ready to transact with the GLN, our supplier partner O&M is ready, and once we get our issues resolved with our MMIS software and our exchange partner, it won't take us long to get going."

Going into the Premier GLN Transaction Program, O&M's Sang Chong expected to:
- Test and gain experience in configuring systems and processing electronic sales orders with GLNs.

- Successfully process EDIs using GLNs with selected partners.
- Identify how GLNs could be used and what the initial implementation would require.
- Establish the default process for GLN transactions to be used with other trading partners.
- Be better equipped for the full implementation to be ready for the December 2010 GLN Sunrise date.

While O&M and Mission had some difficulties getting the pilot successfully completed, Chong is not disappointed. "We were able to capture some lessons learned that will help in future implementations. Mission and O&M are also continuing to work together to overcome the hurdles and workout the process," Chong said. In addition, O&M is in the process of upgrading its backend systems. Expected to be completed by Jan. 2011, the system will accommodate GLNs in EDI transactions with O&M customers.

For GLN pilots, Chong outlined the following implementation steps:

1) Identify the trading partner to test the GLNs on sales transactions.
2) Define scope—typically limited to sales order EDI documents and limited number of GLNs.
3) The provider registers GLNs within the GLN Registry for Healthcare®.
4) The provider forwards to O&M the conversion table that matches the legacy account "ship-to" codes to the new GLNs.
5) The cross reference data is entered to O&M's pilot table for GLNs.
6) Sales EDI (850) is tested.
   a) If issues occur, ensure the following options were considered and accounted for accordingly:

i) Upgrading provider MMIS so that it can generate the EDIs for GLN in the correct format
ii) Involving e-commerce/exchange providers from the beginning to facilitate the conversion service for the provider.

"GLN implementation is doable by the Sunrise date for Dec. 2010. No one need wait until everything is perfect or lined up. Get started, identify your opportunities and challenges, and you'll soon be on your way to more streamlined supply chain interactions," Chong said.

Key experience takeaways:

- Get involved with workgroups and conferences to learn about the benefits of using GLNs

- Start small --use GLNs on sales EDIs, and start with a few GLNs at the "ship-to" level.

- Involve all parties early to get the process clearly defined.

Lessons Learned

Across the board, participants experienced benefits from the steps they took to prepare for GLN transactions, regardless of whether an actual transaction took place. Among the lessons learned:

- Participants agreed that implementing the GLN is **completely achievable** within a reasonable timeframe.

- Participants found that the **work required to support GLN implementation is largely front-loaded**. At the very beginning of the process, these providers spent roughly eight to ten hours to get GLNs cleansed and reconciled with Premier, as well as communicated and matched with supplier account numbers. Once a GLN maintenance process is in place, providers found that approximately two hours a week needs to be dedicated to the effort.

- All participants felt that providers should **start small and basic**—work on Level 1 in the GLN Registry (parent organizations) and establish the correct "ship-to" locations.

- Providers also agreed **that establishing a process for maintaining** GLN information in the **Registry is extremely important**. GLN maintenance needs to become a routine business process and second-nature to ensure long-term success.

- Providers also felt that selecting a strong, customer-oriented supplier partner for the initial GLN implementation is important. As GLN expertise is not established in healthcare, there is a feeling of **"we're all in this together,"** and starting the GLN

implementation with a good supplier partner will help in identifying challenges and solutions in using the GLN.

- Participants felt strongly that **hospitals should drive GLN implementation** with supplier partners. In most cases, suppliers will comply with customer requests and collaborate to figure out how to overcome implementation challenges.

- Despite the fact that 2 of the 3 pairings were unable to complete a transaction, providers felt that the exercise in **preparing for GLN implementation was valuable and important**, and overwhelmingly felt that they "were ready to go".

- All participants felt that providers should get started with GLN implementation right away. By doing so, the **mystique involved with GLNs will become manageable**. One of the biggest barriers identified is simply "the unknown," which quickly disappears once the process is started.

- Participants felt that there was no reason to wait on GLN implementation. Even if a provider is waiting for a systems upgrade, or desires to ultimately have all hospital delivery locations enumerated with GLNs, **implementation can and should occur in a phased approach**.

- **Stay educated and get involved** in workgroups and user groups sponsored by GS1 US and other industry organizations.

<u>Conclusion</u>

Healthcare providers and suppliers should begin preparing for the 2010 GLN Sunrise now. Through the use of the GLN, critical linkages in the supply chain can be clearly identified and universally numbered. The GLN will enhance the healthcare industry's ability to ensure the right product gets to the right place at the right time. With the GLN Sunrise on the horizon, the Premier member hospitals involved in the initial phase of the Premier GLN Transaction Program will continue to build upon the experiences and lessons learned. Premier is expanding its GLN Transaction Program to include additional member and supplier partner pairings.

About Premier

The Premier healthcare alliance is more than 2,300 U.S. hospitals and 66,000-plus other healthcare sites working together to improve healthcare quality and affordability. Owned by not-for-profit hospitals, Premier maintains the nation's most comprehensive repository of clinical, financial and outcomes information and operates a leading healthcare purchasing network. A world leader in helping deliver measurable improvements in care, Premier works with the Centers for Medicare & Medicaid Services and the United Kingdom's National Health Service North West to improve hospital performance. Headquartered in Charlotte, N.C., Premier also has offices in San Diego, Philadelphia and Washington.

About the Premier GLN Transaction Program Participants

Aurora Health Care is a not-for-profit Wisconsin health care provider and a nationally recognized leader in efforts to improve the quality of health care. Aurora offers services at sites in more than 90 communities throughout eastern Wisconsin. http://www.aurorahealthcare.org.

Baxter International Inc., through its subsidiaries, develops, manufactures and markets products that save and sustain the lives of people with hemophilia, immune disorders, infectious diseases, kidney disease, trauma, and other chronic and acute medical conditions. As a global, diversified healthcare company, Baxter applies a unique combination of expertise in medical devices, pharmaceuticals and biotechnology to create products that advance patient care worldwide. www.sustainability.baxter.com

Geisinger Health System (Danville, PA), founded in 1915, is one of the nation's largest integrated health services organizations. Serving more than two million residents throughout central and northeastern Pennsylvania, the physician-led organization is at the forefront of the country's rapidly emerging electronic health records movement. Geisinger is comprised of three medical center campuses, a 700-member group practice, a not-for-profit health insurance company and the Center for Health Research—dedicated to creating innovative new models for patient care, satisfaction and clinical outcomes. For more information, visit www.geisinger.org.

Global Healthcare Exchange, LLC (GHX) enables healthcare providers and suppliers in North America and Europe to reduce costs and improve margins by automating processes, reducing operating expenses and increasing knowledge-based decision making. Products and services include trading partner connectivity, order and contract management and validation, data synchronization, sales force automation and business intelligence. Equity owners of GHX are Abbott Exchange, Inc.; AmerisourceBergen Corp.; Baxter Healthcare Corp.; B. Braun Medical Inc.; Becton, Dickinson & Co.; Boston Scientific Corp.; Cardinal Health, Inc.; Covidien; C.R. Bard, Inc.; Fisher Scientific International, Inc.; GE Healthcare; HCA; Johnson & Johnson Health Care Systems Inc.; McKesson Corp.; Medtronic USA, Inc.; Owens & Minor; Premier, Inc.; Siemens; University HealthSystem Consortium; and VHA Inc. For more information, visit www.ghx.com.

Medline Industries, the nation's largest privately held manufacturer and distributor of healthcare products, manufactures and distributes more than 100,000 products to hospitals, extended care facilities, surgery centers, home care dealers and agencies and other markets. Headquartered in Mundelein, IL, Medline has more than 800 dedicated sales representatives nationwide to support its broad product line and cost management services. Over the past five years, Medline has been the fastest growing distributor of medical and surgical supplies in the U.S., serving as the primary distributor to over 450 major hospitals and health care systems. As a leading distributor, Medline offers a comprehensive array of consulting and management services encompassing the supply chain and logistics, utilization and standardization, business tools and enhanced reporting capabilities, and on-staff clinicians. http://medline.com/

Mission Hospital is the regional referral center for Western North Carolina and the adjoining region and is accredited by The Joint Commission. Mission Hospital, a not-for-profit, independent community hospital system based in Asheville, NC, was formed when St. Joseph's Hospital and Memorial Mission Medical Center started an organizational partnership in 1996. This partnership was followed by a full merger on October 27, 1998, when St. Joseph's Hospital was purchased from the Sisters of Mercy by Memorial Mission Medical Center. Today these hospitals are part of the Mission Health System.
http://www.missionhospitals.org/.

Owens & Minor, a FORTUNE 500 company headquartered in Richmond, Virginia, is the leading distributor of medical and surgical supplies to the acute-care market and a leading provider of healthcare supply-chain management solutions with the annual revenue of over $7.2 billion. Owens & Minor offers a full, integrated suite of supply chain management services for sustainable solutions–from origin of product to delivery to patient bedside. www.owens-minor.com.