

Iroquois Healthcare Association Supply Chain Forum



1:00 pm – 2:00 pm
Zoom

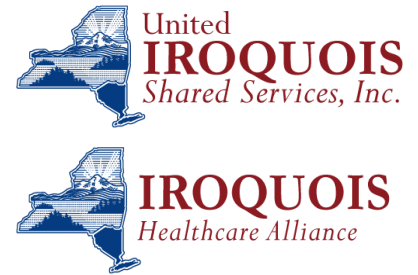
Wednesday, March 13, 2024

Today's Agenda

- Welcome & Opening Remarks – *Donna Gammarato*
- Geopolitical & Environmental Supply Chain Update – *Kyle MacKinnon*
- Creating a Resilient Supply Chain (Federal) & State Update – *Kevin Kerwin*
- Fiscal & Workforce Data Update – *Lauren Ford*
- Supply Chain Updates & Discussion – *Donna Gammarato*
 - ▷ Workforce & Professional Development
 - ▷ IHA-UISS Regional Initiatives
- Round Table Discussion
- Next Steps

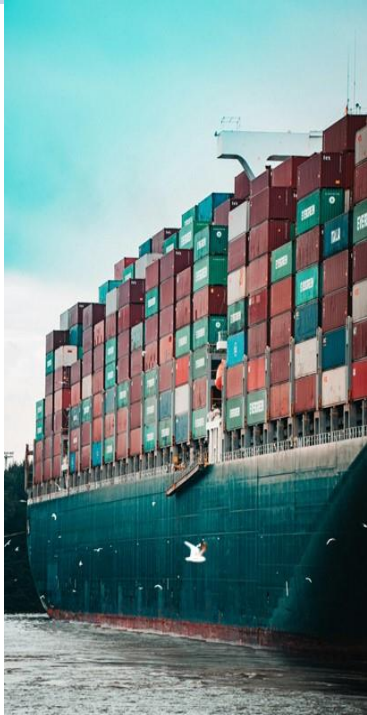
Geopolitical & Environmental Supply Chain Update

*Kyle MacKinnon, MA
Senior Director, Operational Excellence
Supply Chain Services, Premier, Inc.*



State of Global Healthcare Supply Chains

Major Supply Chain Headwinds in 2024



- › **Global Conflicts:** Ongoing Israel-Hamas and Russia-Ukraine wars continue to generate uncertainty in affected supply chains. Black Sea Grain Corridor seeing recent success.
- › **Red Sea Disruptions:** Ocean carriers re-routing major trade routes due to risks associated with ongoing Houthi attacks. **Latest:** after spiking, freight rates begin to soften as supply chains adapt and normalize. Transit times increase by an average of 7 to 10 days; with deadly attacks, route is expected to be new normal through second half of 2024.
- › **Panama Canal Droughts:** Daily transits through the Panama Canal have been reduced amid record droughts. **Latest:** PCA to maintain 24 daily transits until April, with possible increases depending on rainfall, avoiding further restrictions.
- › **Cybersecurity threats** and **global labor disruptions** compound supply chain risk, heightening operational vulnerabilities and escalating cost pressures. Ports and carriers are major areas of concern. Ransomware threats targeting healthcare entities.
- › **Global economic volatility**, e.g., inflation and interest rate uncertainties, poses challenges to healthcare supply chain efficiency and cost management.

Maersk Expecting Extended Red Sea Diversions Through 2024



A.P. Moller-Maersk, the second-largest global ocean carrier, is advising customers to prepare for a Red Sea crisis that could stretch well into the second half of this year. *"Unfortunately, we don't see any change in the Red Sea happening anytime soon"*

Maersk officials said during its recent earnings call that **the situation will not compare to the Covid supply chain inflation period** due to the current overcapacity of vessels resulting from a post-Covid freight industry recession.

To keep the flow of trade moving, Maersk has added roughly 6% of extra vessel capacity to its schedule, adding operational costs

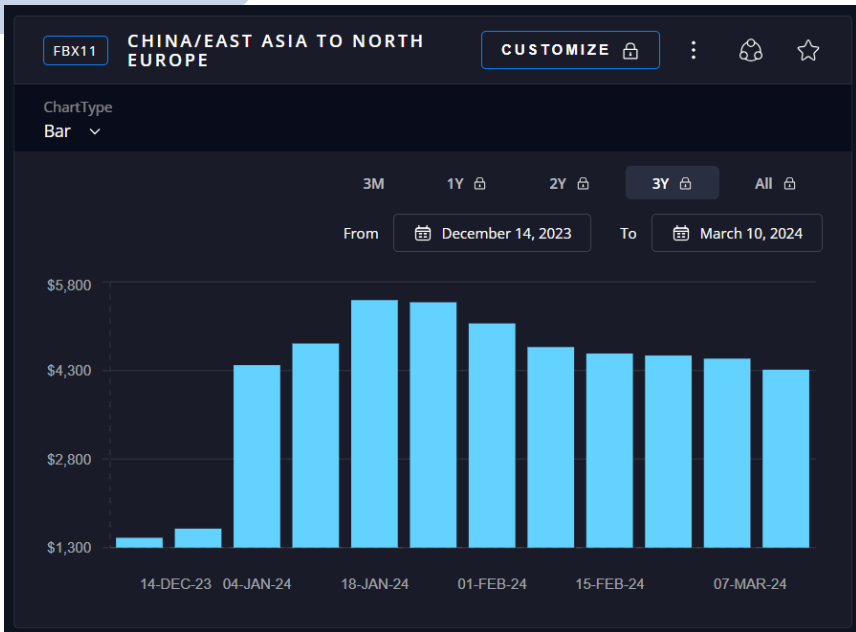
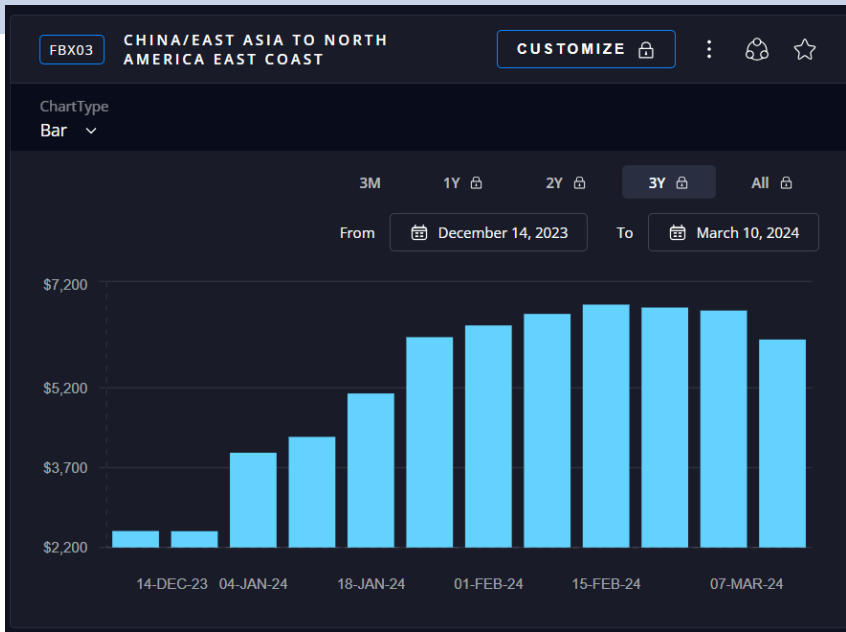
[*Shipping giant Maersk says Red Sea vessel diversions could extend into second half of 2024 | Hellenic Shipping News Worldwide*](#)

March Ocean Freight Data Indicates We're Beyond the Initial Shock



About: The index measures global container freight rates by calculating spot rates for 40-foot containers on 12 global trade lanes. It is reported around the world as a proxy for shipping stocks and is a general shipping market bellwether. The FBX is currently one of the most widely used freight rate indices.

Freightos - Ocean Pricing Index March 11, 2024



Improvements in pricing indicate stabilization in ocean freight supply chains.

Panama Canal Drought Update



Significant Queue Reduction: The Panama Canal currently has a queue of only 45 ships, a 50% decrease from the historical average, indicating a major shift in western hemisphere seaborne trades.

Northbound vs. Southbound Wait Times: Northbound ships face an average wait of 15.1 days, significantly longer than the 3.6 days for southbound vessels.

Increased Transit Slots: The ACP has increased daily transit slots to 24, up from the initially planned 20 in January and 18 in February, due to recent rains.

Ongoing Drought Impact: Persistent drought has led to over six months of restrictions, including reduced maximum draft and transit numbers, pushing ships to alternative routes like the capes or the Suez Canal.

There have been no direct healthcare impacts reported to Premier at this time. We continue to monitor the situation and remain in contact with our contracted suppliers.

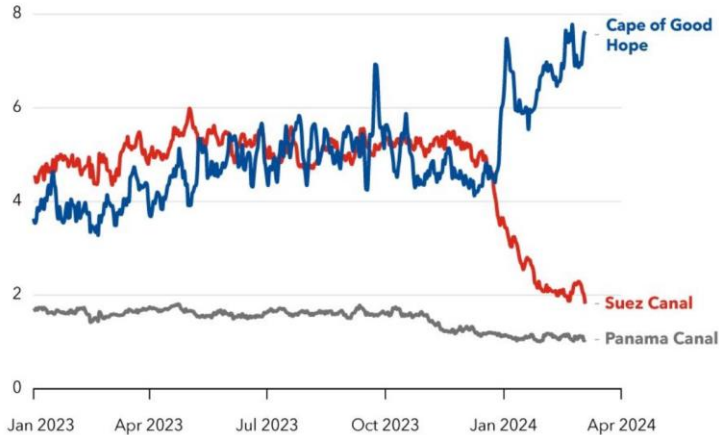
Trade Disruptions Summary

Trade disruptions

Trade has been diverted from the Suez Canal to the Cape of Good Hope, while less has passed through the Panama Canal.

Daily transit trade volume

(million metric tons, 7-day moving average)



Sources: UN Global Platform; IMF PortWatch.

IMF

Red Sea dangers will continue to divert traffic through Suez Canal.

New route around Cape of Good Hope = new normal for 2024; Supply chains adapting.

La Nina conditions developing are likely to bring rainfall to Gatun Lake to raise levels.

Mexico continues to advance development of Interoceanic Corridor that would rival Panama Canal.

By 2028, the Isthmus of Tehuantepec Interoceanic Corridor (CIIT) should see 300,000 [cargo containers](#) transit every year, with 1.4 million—about 33 million tons—by 2033.

Privatization of the U.S. Federal Helium System Assets

Recap of Recent Sale

- **Sale Accepted:** The U.S. government finalized the sale of the Federal Helium Reserve, located in Amarillo, Texas, which supplies up to 30% of the country's helium.
- The highest bidder Messer, an industrial gas company, will acquire about 425 miles of pipelines spanning Texas, Kansas, and Oklahoma, along with approximately 1 billion cubic feet of helium.
- Issues such as state-specific regulations, helium enrichment processes, and the need for leasing arrangements for enrichment facilities **pose potential challenges to the new owner.**

Premier Proactive Measures

- Premier is speaking with Messer regarding insights, outlook, options for healthcare.
- Premier is communicating with Siemens, GE and Philips to discuss perspectives and contingency plans

MRI Tech Reduces Dependency for Helium

BlueSeal magnet

Transition your department towards more productive helium-free MR operations¹



*"This revolutionary magnet operates with **only seven liters of liquid helium** and is fully sealed – freeing up your mind and operations from potential helium complications."* [Link](#)

Supply Chain Radar

Healthcare and Supply Chain Cybersecurity Threats

Clorox, Henry Schein, Change Healthcare

[Premier Resources](#) Available in PINC AI™ & through UISS

Labor Disruptions in Healthcare and Supply Chains

UK, Germany, Spain, Mexico

U.S. East Coast and Gulf Ports

Continued Geopolitical Dynamics

Taiwan President Inauguration in May

Global Elections

Policy, Increased “Protectionism”

Environmental Protection Agency Concerns and Proposed Rule



Ethylene oxide (EtO) has been linked to increased cancer risks and other health effects when inhaled.



EtO is used to sterilize tens of billions of devices each year for 50% of devices that require sterilization.

Ethylene Oxide Commercial Sterilizers

On April 11, 2023, EPA proposed new requirements for 86 commercial sterilizers across the country. These requirements, if implemented, will reduce the amount of EtO that comes out of commercial sterilizers by 80% and will reduce risk in nearby communities.

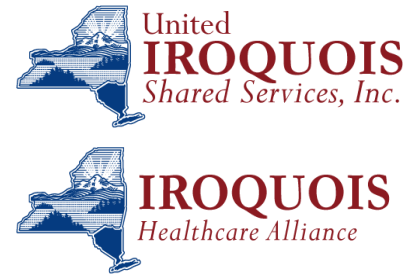


- Impose stricter emissions limits for sterilization facilities.
- Increase protections for workers and people who live near facilities, and limit how much gas is used in a sterilization cycle.
- The agency expects the changes would reduce EtO emissions by 19 tons per year.
- No individual would be exposed to EtO levels that correspond to a lifetime cancer risk of greater than 1 in 10,000.
- The EPA is expected to finalize those standards by March 1, 2024, per a consent decree signed in May by a U.S. district judge.
- Companies would then have 18 months to implement the required pollution controls.

Creating a Resilient Healthcare Supply Chain

Kevin M. Kerwin, Esq., Executive Vice President & Legislative Counsel

Source:
Soumi Saha, PharmD, JD
Senior Vice President of Government Affairs, Premier, Inc.



President Biden's Executive Order on Sustainable Public Health Supply Chain

Highlights



President Biden **announced** “bold new actions” to strengthen American supply chains at the inaugural meeting of the new White House Council on Supply Chain Resilience.

Reminder: Premier is a member of the Executive Committee of the Biden Administration's Joint Supply Chain Resiliency Working Group.

- ✓ The creation of the Council on Supply Chain Resilience, convening more than a dozen heads of federal agencies, co-chaired by the National Security Advisor and National Economic Advisor
- ✓ Broaden HHS' use of the Defense Production Act to make more essential medicines, including key starting materials, in America to mitigate drug shortages
- ✓ New cross-governmental supply chain data-sharing capabilities, including Commerce partnering with HHS to assess industry and import data that can help address foreign dependency vulnerabilities and points of failure for critical drugs
- ✓ Additional actions to support stronger supply chains and access to affordable, reliable energy and critical technology, including:
 - Launch of the quadrennial supply chain review
 - New Resilience Center and tabletop exercises for supply chain disruptions
 - Launch of Department of Transportation Multimodal Freight Office
 - Monitoring of climate impacts
 - Deepening international early warning systems to detect and respond to supply chain disruptions in critical sectors with allies and partners

Medical and Health Stockpile Accountability Act (H.R. 3577)

The Problem

- A major issue during the pandemic was lack of visibility into exact quantities of critical medical supplies and drugs on U.S. soil at any given time.
- This resulted in: A surplus of products in many parts of the nation while hard-hit communities were operating in crisis mode; excessive purchasing of products; emergence of unscrupulous and fraudulent vendors; and hoarding which created shortages for others.
- The federal government stood up a siloed, antiquated, health information collection system that burdened providers and failed to inform care or provide early warnings of supply shortages.

H.R. 3577 establishes an automated supply chain technology application that provides near real-time insight into critical medical supplies in national & state stockpiles

-  Voluntary system will overlay on top of existing VMI systems, be vendor agnostic and triggered during emergency response
-  Eliminates manual reporting burden and errors by automating voluntary data feeds
-  Clear guidelines and practices for standardized information collection in consultation with public and private sector
-  Protections against exposure of information or confiscation of inventory
-  Annually tests effectiveness of the application and report any deficiencies
-  Provides insights to hospitals, manufacturers, distributors, and other private sector entities relating to inventory and time estimates for when inventories may be replenished
-  Funds ERP/VMI systems at small, rural, critical access hospitals

Sign-on Letter in Support of H.R. 3577 50+ Signers, including:



- Advocate Health
- America's Essential Hospitals
- CommonSpirit Health
- Exela Pharma Sciences, LLC
- EZ Way, Inc.
- Federation of American Hospitals
- FirstHealth of the Carolinas
- Group Health Cooperative of South Central Wisconsin
- Healthcare Leadership Council
- Healthmark
- I.C. Medical, Inc.
- **Iroquois Healthcare Association**
- MYCO Medical
- NOW Interactives LLC
- Onsite Management Group
- Pandion Optimization Alliance
- Performance Health Supply, LLC
- Prairie Health Ventures
- Premier Inc.
- Prestige Ameritech
- S2S Global
- Tanner Health System
- Tetra Medical Supply Corp.
- The Center for Health Affairs - CLE Hospital Association and CHAMPS Healthcare (GPO)
- Vantage Point Logistics
- Yankee Alliance

Original Sponsors

Richard Hudson (R-NC), Josh Gottheimer (D-NJ), Troy Balderson (R-OH) and Lori Trahan (D-MA)

Medical Supply Chain Resiliency Act (S.2115 / H.R.4307)



The Bill

Establishes a Trusted Trade Partner network

Authorizes the President to enter into trade agreements with Trusted Trade Partner countries

Diversifies sourcing for medical devices and pharmaceuticals, enabling timely access to the vital supplies providers need to care for patients during a public health crisis or national security threat



Specifics

Countries must meet certain criteria to be considered a Trusted Trade Partner

The agreement will reduce barriers to trade, harmonize regulations, and increase public private investment opportunities in R&D and manufacturing



Sponsors and Support

Introduced by Senators Tom Carper (D-DE) and Thom Tillis (R-NC) and Reps. Michelle Steel (R-CA) and Brad Schneider (D-IL)

The bill has support from over 10 organizations, including Premier

Please reach out to your Senators to co-sponsor the bill



ONSHORE Manufacturing Act



“Our Nation’s Supply chain for Healthcare has Over Reliance Elsewhere Act”



Introduced in 117th Congress by Rep. Brad Wenstrup (R-OH).



Rep. Wenstrup looking to reintroduce and seeking Democratic original co-sponsors.

[Wenstrup Releases Draft Legislation to Secure Domestic Manufacturing of Critical Battlefield Medicines & Devices | U.S. Representative \(house.gov\)](#)



Would leverage tax credits to stimulate investments in domestic manufacturing.

- Part 1: A 30% tax incentive for investments to support the domestic manufacturing of critical medical supplies and drugs.

- Limited to products on the FDA and DoD lists of Essential Medicines, Medical Countermeasures, and Critical Inputs, the FDA List of Critical Medical Devices, and the DoD Joint Deployment List.

- Part 2: A 10% tax credit on income generated from the sale of domestically manufactured goods to help lower costs and make them price competitive with globally sourced products.

- Part 3: Requires multiple agencies (IRS, VA, DoD) to submit reports to Congress regarding supply chain resiliency.

FDA Releases Critical Medical Device List



Critical Medical Device List: Summary and Recommendations

September 2023

- The FDA coordinated a public-private collaborative effort to develop a [Critical Medical Device List](#) (CMDL) to facilitate resilience across the medical device ecosystem.
- To achieve this, a Task Group was established as part of the Joint Supply Chain Resilience Working Group (JSCRWG) under the Critical Infrastructure Partnership Advisory Council (CIPAC).
 - Premier sits on the [Executive Committee](#) of the JSCRWG
 - Sharon Roberts, Premier's VP of Clinical Services and Contract Operations, represented Premier as a member of the Task Group.
- The Task Group identified 142 types of medical devices that met the criteria of a critical medical device, organized by device type and aligned with five clinical functions:
 1. Care delivery
 2. Clinical diagnostic assessment
 3. Clinical laboratory testing
 4. Infection control
 5. Medical imaging
- This first list of its kind will be leveraged to enable further resilience by government agencies and is also essential to many of Premier's forthcoming policy agenda items, such as securing tax incentives for the domestic manufacturing of critical medical devices.

State Update

Kevin M. Kerwin, Esq., Executive Vice President & Legislative Counsel



Cybersecurity

Discussion



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Healthcare Association

Change Healthcare Cyberattack

- IHA continues to monitor a cybersecurity incident affecting Change Healthcare, a technology company, which is part of Optum owned by UnitedHealth Group.
- Optum is providing status updates, but it is possible that this could be a weeks-long problem
- IHA has been in regular contact with the Hochul Administration highlighting hospital operations dealing with significant disruptions.
- Emergency Regulatory relief is needed.

Change Healthcare Cyberattack

Change Healthcare Cyberattack began on or about 2/21/24

- ▶ IHA staff have been involved in a number of state and national calls and will continue to monitor the situation.
- ▶ DFS Circular Letter

Optum's latest public update 3/4

- ▶ Threat actor known: ALPHV/Blackcat
- ▶ Multiple workarounds suggested by Optum
- ▶ UnitedHealthcare managing all updates

Current National Assumption

Change Healthcare will be unavailable for weeks if not months. We must assume that this service may not return. Focus on finding creative and new solutions.

Change Healthcare Cyberattack

- DOH considering solutions
- DOH Survey
- Urging Executive Order to recognize a state of emergency and provide regulatory flexibility similar to those which were used during the pandemic
- Attorney General Involvement
- Should Optum post a bond to cover emergency funding?
- Do they have Cyber insurance? Is this covered?
- How will the state review, assist and fund emergency funding requests?
- Transformation Grant application deadline of March 13 related to cybersecurity extended to March 28

NYS PPE Stockpile Regulations

Update



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PPE Stockpile Regulation

1. Summary of Proposed Changes for Hospitals and Nursing Homes:

1. Hospitals and nursing homes are required to maintain a 60-day supply of PPE based on specified calculations.
2. Storage conditions and emergency provisions are outlined.
3. Compliance with new PPE stockpile requirements is required within 90 days of the Department's determination.
4. Facilities are advised on shelf life management and encouraged to rotate inventory.
5. Facilities are encouraged to rotate through stockpiles to reduce waste.
6. Nursing homes are already obligated to maintain a two-month supply of PPE, aligning with these regulations.

2. Compliance Schedule:

1. The regulations became effective on February 28, 2024 when the Notice of Adoption was published in the New York State Register.
2. Hospitals and nursing homes will have 90 days to comply with new PPE stockpile requirements after the Department's determination of staffed beds.

3. Penalties:

1. Failure to comply may result in the revocation, limitation, or suspension of a facility's license, with a 14-day grace period for the first violation.

Fiscal and Workforce Data Update

Lauren Ford, LMSW, Senior Director, Data Analytics and Strategy

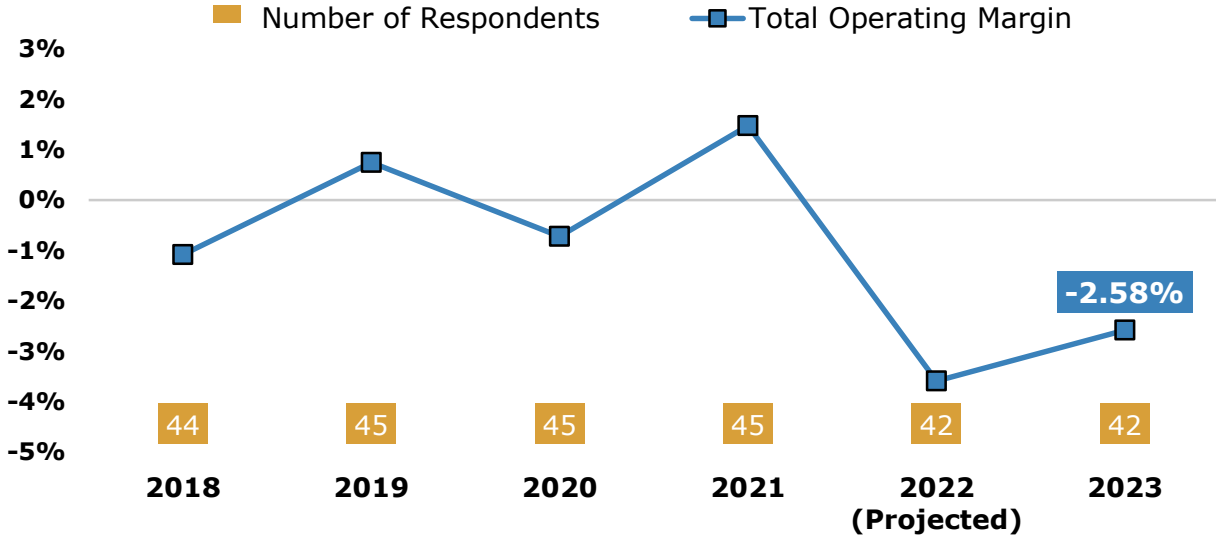


IHA 2023 Annual Financial Survey Results

Conducted January 2024

These findings demonstrate that a majority of Upstate New York hospitals are struggling financially, even with supplemental state and federal funding.

Total Operating Margin



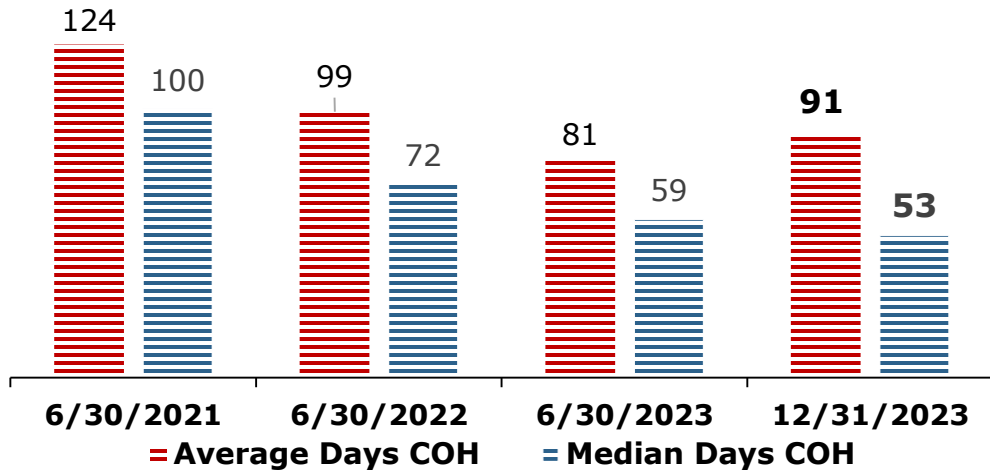
Sources
2018 - 2021 NYS ICR's, 2022 IHA Mid-Year Financial Survey, 2023 IHA Mid-Year

Days Cash on Hand Declining YoY

IHA 2023 Annual Financial Survey Results – Conducted January 2024

- 73% of participating IHA members had **less than 100 days cash on hand**, 50 days below the target benchmark of 150 days.
- Over **50%** of IHA members had **60 days or less of cash on hand**, and almost **25%** of all members had **25 days or less cash on hand**.
- The lowest number of days cash on hand reported was **4** days.

Number of Days Cash on Hand (COH) IHA Members



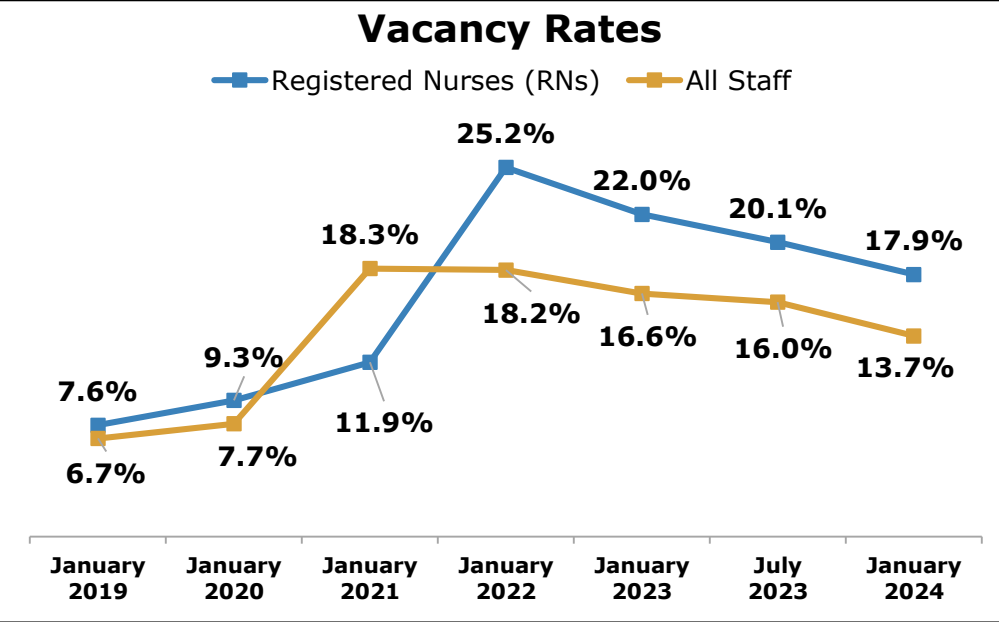
41 Individual Facilities Represented in 12/31/2023 data (95% of IHA Members)

Days COH is defined as the number of days a hospital can continue to cover operating expenses without any additional funds or revenue.

Persistent Workforce Shortages

IHA Semi-Annual Vacancy and Turnover Survey Results – January 1, 2024

- Vacancy rates for RN's remains **135%** higher than pre-pandemic levels.
- Vacancy rates for all staff remains **103%** higher than pre-pandemic levels.



Job Titles with the Highest Rates of Vacancies

IHA Semi-Annual Vacancy and Turnover Survey Results – January 1, 2024

Job Title	Total # of Individuals Employed	Total # of Vacant Positions	Vacancy Rate
1 Operating Room Technician (Surg. Technician)	349	156	28.4%
2 Licensed Practical Nurse - LTC	429	187	27.8%
3 Registered Nurse - LTC	175	87	27.4%
4 Medical Technician (Hospital-based)	183	61	23.3%
5 Licensed Practical Nurse - excluding LTC	1,932	513	19.0%
6 Ultrasonographer	435	108	18.9%
7 Multiskill Patient Care	462	110	18.6%
8 Registered Nurse - Emergency Room	1,080	277	18.6%
9 Social Worker (LCSW)	108	24	18.2%
10 Registered Nurse - excluding LTC	15,091	3,579	17.9%

Supply Chain Updates & Discussion

Discussion



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Workforce & Professional Development

Supply Chain Vacancy, Recruitment & Retention Discussion

Supply Chain Workforce

Do you have a high vacancy rate in Supply Chain.



IHA WIO has significant experience in clinical workforce recruitment & retention and we could potentially leverage their knowledge and capabilities to support supply chain

Are you struggling to attract and recruit qualified staff



Would there be an interest in exploring an apprenticeship program in supply chain to help develop a candidate pipeline

Do you have a high turnover rate



Are you leveraging automation or AI to augment workforce needs and create efficiencies

Are you challenged to provide career development pathways for your staff.

Workforce & Professional Development

IHA/UISS Supply Chain Scholarship



Supply Chain Professionals

The March 15th deadline is fast approaching for our new 2024 Educational Scholarship Program.

The Scholarship Program, open to ALL IHA and UISS Members will offer funds to Supply Chain staff for education and development within the field of Supply Chain Management.



Membership in the Association of Healthcare Resource & Materials Management (AHRMM)



Participate in an AHRMM supply chain educational program/course/summit for advanced learning



Certification in Certified Materials & Resource Professional (CMRP)

IHA-UISS Regional Initiatives

- Contract Management Life Cycle Solution
 - ▷ Member Driven Collaborative
 - ▷ Finalizing vendor selection
- Linen and Laundry Outsourcing
 - ▷ Multi-hospital aggregation sourcing event in process
- Energy Management Initiative
 - ▷ Explore interest in regional aggregation opportunity



UISS Regional Energy Initiative

A UISS Zenith Energy Aggregated Purchase to Drive Savings

Achieving lower energy rates through an aggregated purchase of natural gas and electricity supply

Energy is a financial market that responds to larger spend volumes by offering lower supplier margins, better contract terms and the ability to obtain lower cost-layered pricing at wholesale.

Healthcare energy buyers can leverage their combined size in the market by acting together. United Iroquois Shared Services (UISS) and its energy partner, Zenith Energy, is exploring an unprecedented opportunity for Members to join the aggregated group whose goal is to leverage the purchasing power of their energy spend.

Members can participate with no risk and no cost. Participating members' energy usage will be combined and brought to market in a price bidding competition with the goal of driving down pricing for all. Pricing will be based upon each Member's unique start dates and load shape but with the understanding that the commodity suppliers must bid their best prices to win participation from the group. This approach will drive down supplier margins and get pricing closer to wholesale. Each Member would receive a report of the outcomes specific to their organization and would then decide on the course of action (contract or decline).

Proposed Process:

Phase 1: Exploratory: Provide an overview of the opportunity to gauge interest and share ideas on implementation and challenges

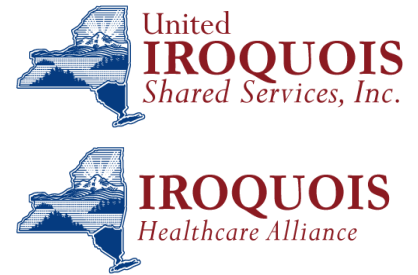
Phase 2: Participation Package Consideration: Review the 1) letter of interest, 2) process timeline and 3) data request.

Phase 3: Participation: Participants' data will be reviewed then a request for bidding will commence and findings will be reported to each Member.

About Zenith Energy:

- United Iroquois Shared Services, Inc. Energy Partner
 - 20 Years of Service
- \$2.5 billion in annual energy spend under management
- Ranked #1 in Overall Supplier Satisfaction in 2015, 2016, 2017, 2019, and 2023 (Energy Research Consulting Group)
- Won Broker of the Year in 2015, 2017, 2021, and 2023 (The Energy Professionals Association (TEPA))

Roundtable Discussion



Topics submitted

- What are a few geopolitical risks to be cognizant of in 2024 in relation to supply chain
- What KPI's are you posting monthly
- What are your top 3 metrics to manage supply chain operations
- Interested in understanding the impact this (forum) would have on supply chain workforce
- Would you be willing to share your med/surg distributor mark up in a blinded survey
- What medical products are we seeing that are becoming very hard to get or manufacture
- Continued product shortages for materials using plastic such as sterile fluid bottles, tubing, etc.
- Is anyone using supply disruption predictive analytics to manage/mitigate shortages
- Feedback from December meeting on rebate management tool

Supply Chain KPI Discussion

AHRMM Keys for Supply Chain Excellence



The AHRMM Keys for Supply Chain Excellence are key performance indicators (KPIs) that set the standard for supply chain management in the health care field. AHRMM Keys equip professionals with the information and supply chain metrics to measure performance over time, quantify the value of their organization's supply chain to executive leadership, and move their supply chain closer to operating from the intersection of Cost, Quality and Outcomes (CQO).

Health Care Supply Chain Metrics and KPIs

- Finance
- Operations
- Patient Safety
- Resiliency
- Data Standards
- Environmental Sustainability

Health Care Supply Chain Metrics and KPIs

- Finance
- Operations
- Patient Safety
- Resiliency
- Data Standards
- Environmental Sustainability

- Supply Accounts Payable (AP) Days
- Supply Expense Per Case Mix Index (CMI) Adjusted Discharge
- Supply Expense as Percent of Net Patient Revenue
- Spend Under Management (SUM)
- Inventory Turns
- Supply Chain Labor Expense Per Case Mix Index (CMI) Adjusted Discharge

Next Steps

All participants



Next Steps

- Next Quarterly Forum – June 12, 2024 – 12 noon to 1pm
- Slides from today will be distributed via email
- Reminder: please take our quick 2 minute survey to help us better frame future discussions
 - ▶ [Supply Chain Forum Survey](#)

Thank you for attending!