



National Infusion Collaborative

*State of Infusion Report
June 2024*

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Who We Are

The NIC, formed in partnership with Purdue University's REMEDI organization and Bainbridge Health, brings together Pharmacy, Nursing, Quality, and Safety leaders focused on infusion pump data analytics and safety practices.

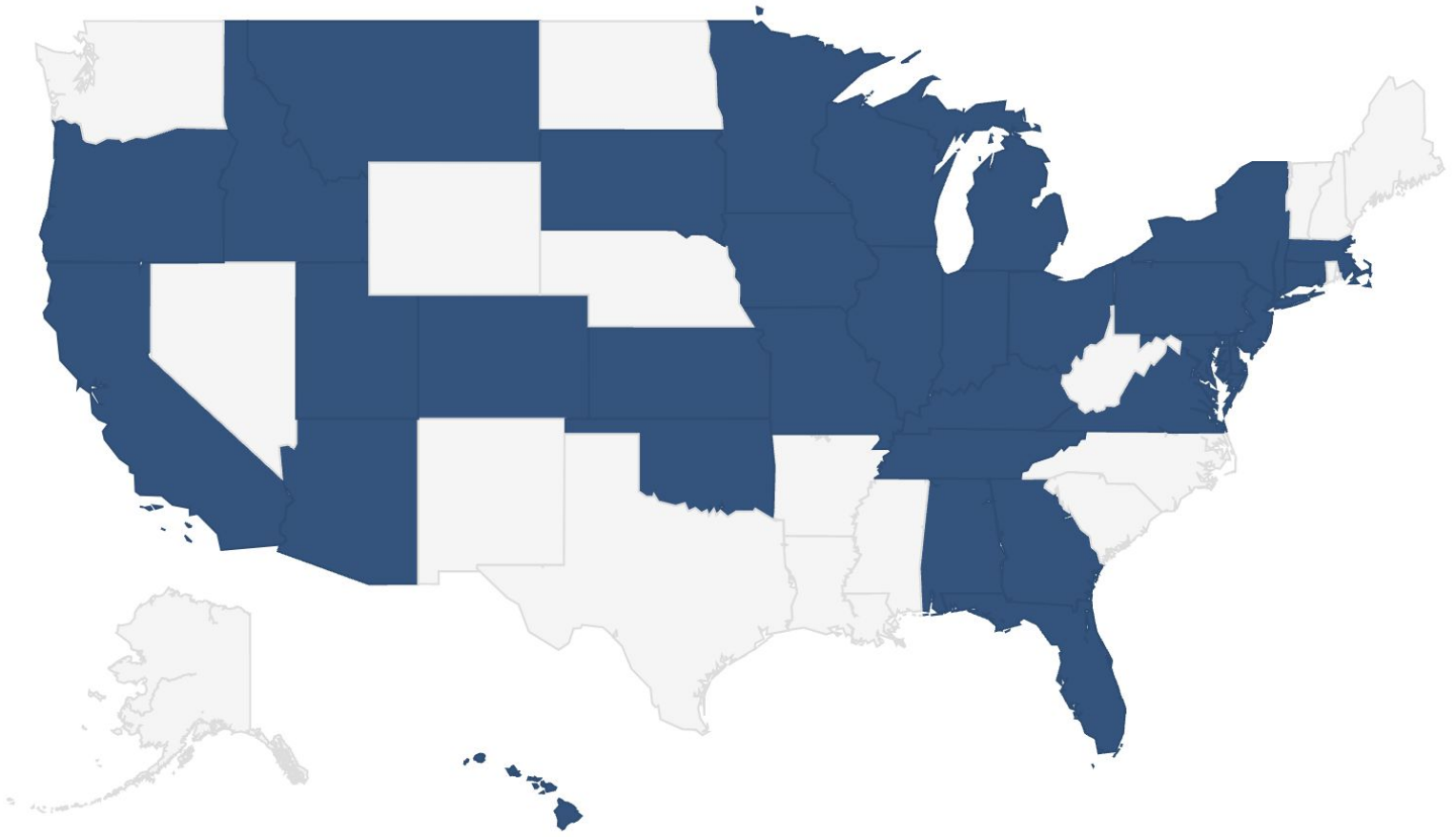
Mission

The goal of the National Infusion Collaborative is to leverage its unique network of practitioners and national dataset to drive unprecedented network benchmarking and knowledge-sharing.

Data

Data is from a vendor agnostic data set from over 300 hospitals across the United States. Data is being shared on a semi-annual basis to provide insight into infusion pump metrics and alert trends. Data in this report is from October 1, 2023 through March 31, 2024.

National Infusion Collaborative Network



States
33



Sites
302



Beds
61,605

Network Benchmarking

October 1, 2023 through March 31, 2024

The National Infusion Collaborative programmed
19,735,667 infusions.

Compliance
87.1%

2,545,901 of these infusions were non-compliant with Dose Error Reducing Software (DERS).

There were an average **214,104** alerts per month across the Collaborative. The most common alert types were **Dose** and **Duration**.

Alert Rate
7%

Override Rate
Overall
64.4%

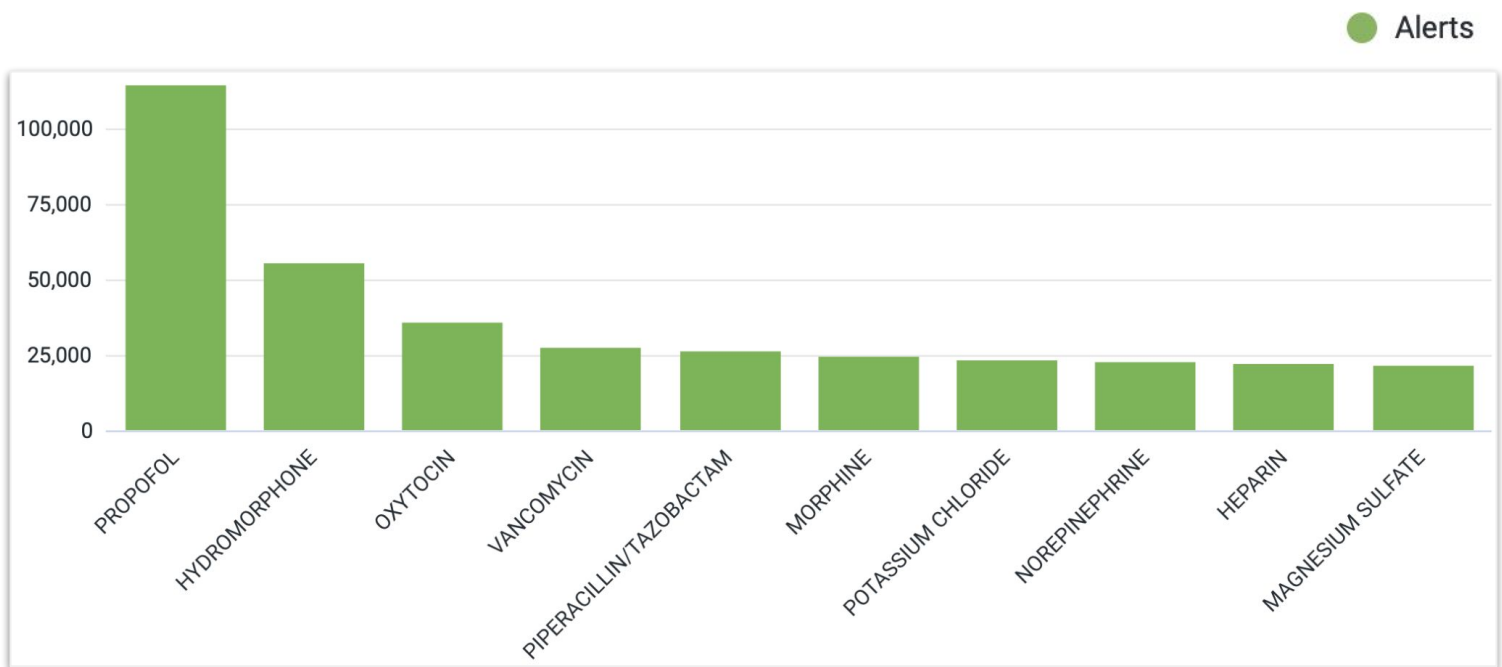
While **64.4%** of alerts were overridden, **18%** of all alerts were cancelled. Cancelled infusions after an alert may represent additional infusions that are non-compliant with DERS.

An override rate of less than 2 seconds can be used as a surrogate for alert fatigue. **More than half** of all overrides were acknowledged in less than 2 seconds.

Override Rate
< 2 seconds
53%

Top 10 Alerts by Medication

October 1, 2023 through March 31, 2024



For additional details on these alert trends, contact us at NIC@bainbridgehealth.com.

A Closer Look at Alert Trends

- **Propofol** remains the **highest alerting** entry across the NIC. This may be due to the wide therapeutic range for anesthesia vs. non-anesthesia use
- **Hydromorphone** not only has the second highest number of alerts for this period, it also has one of the **highest alert rates at 93%**, meaning there is nearly 1 alert per infusion programmed
- Alerts remain high for **Oxytocin**, due the challenging nature of use for multiple indications in the same patient treatment course
- A significant increase in alerts were seen over the last 6 months for **Extended Infusion Antibiotics** including **Piperacillin/Tazobactam**. These are primarily duration alerts due to different administration durations for traditional intermittent infusions/loading doses and extended duration infusions

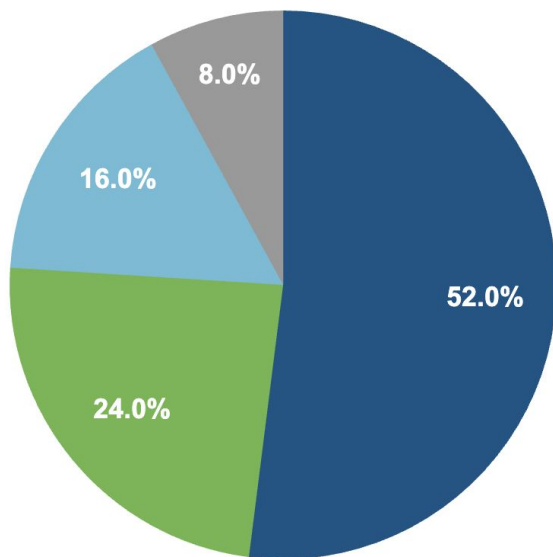
2024 National Infusion Collaborative Pump Transition Survey

Conducted May 2024 of NIC members

Many health systems are reporting that they are considering a significant change to their smart infusion pump platform, yet most have never participated in this process.

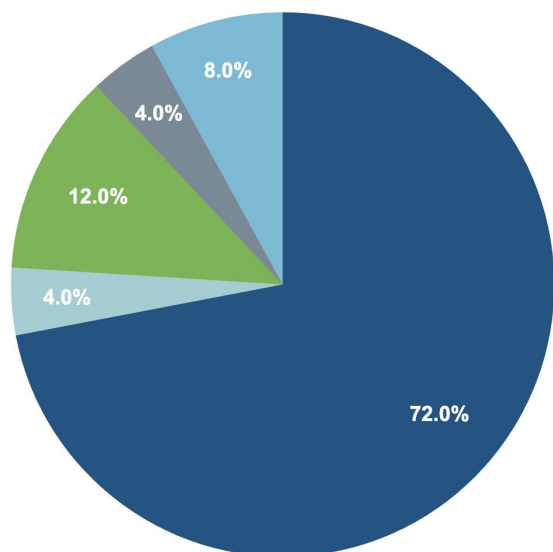
The NIC conducted a survey to gather information others may find useful when considering new smart infusion pumps, but also included things to think about during the smart infusion pump transition process.

Describe Your Health System



- Academic
- Community
- Pediatric
- Multi-Site IDN Non-Academic

The Last Time Your Health System Selected New Infusion Pumps



- More than 6 years ago
- Between 2-4 years ago
- < 2 years ago
- Between 4-6 years ago
- Unknown/Not Sure

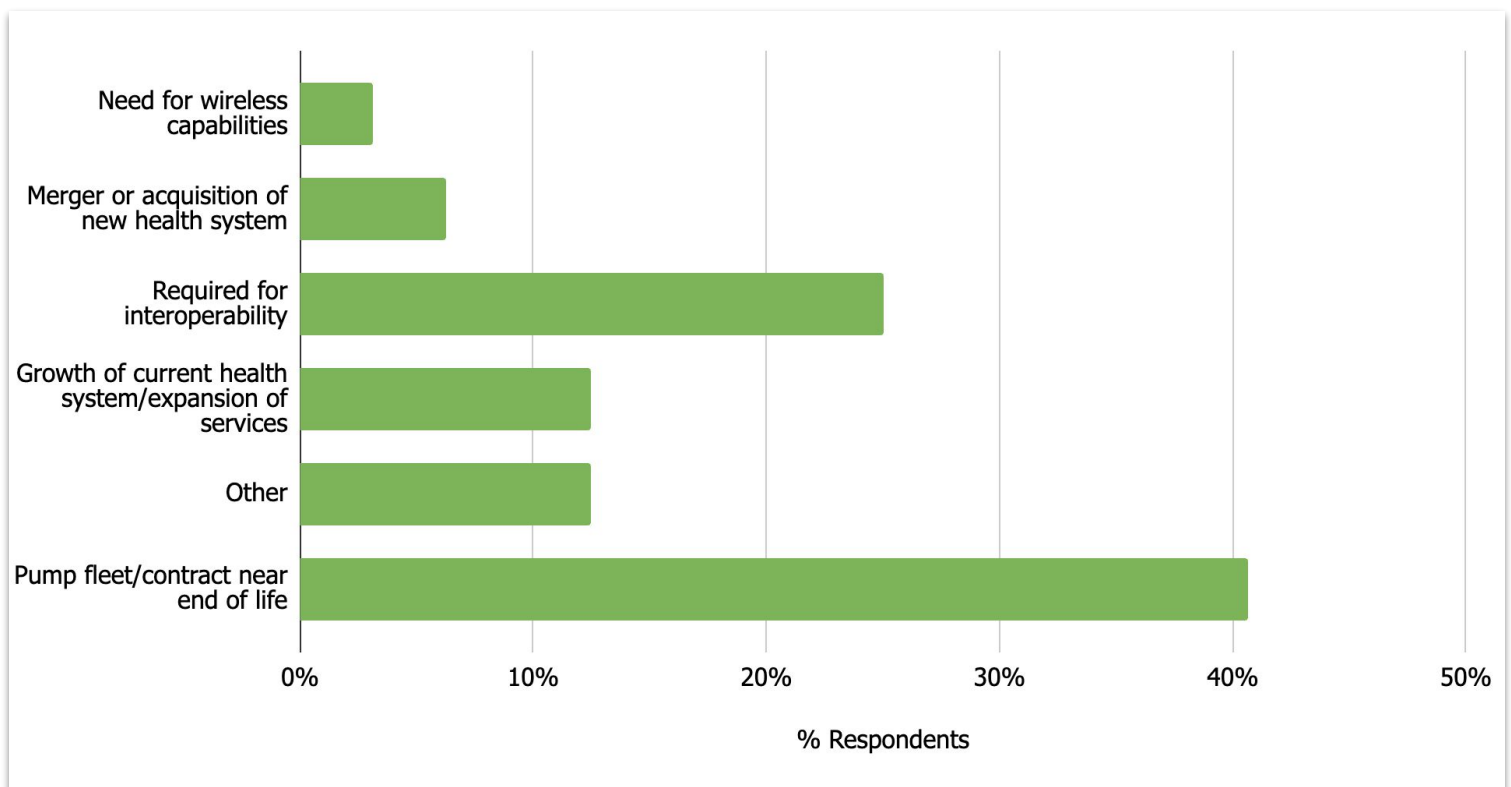
2024 National Infusion Collaborative Pump Transition Survey

Conducted May 2024 of NIC members

68%

...of survey respondents are considering transitioning to new infusion pumps within the next 2 years

Reasons for Considering New Smart Infusion Pumps

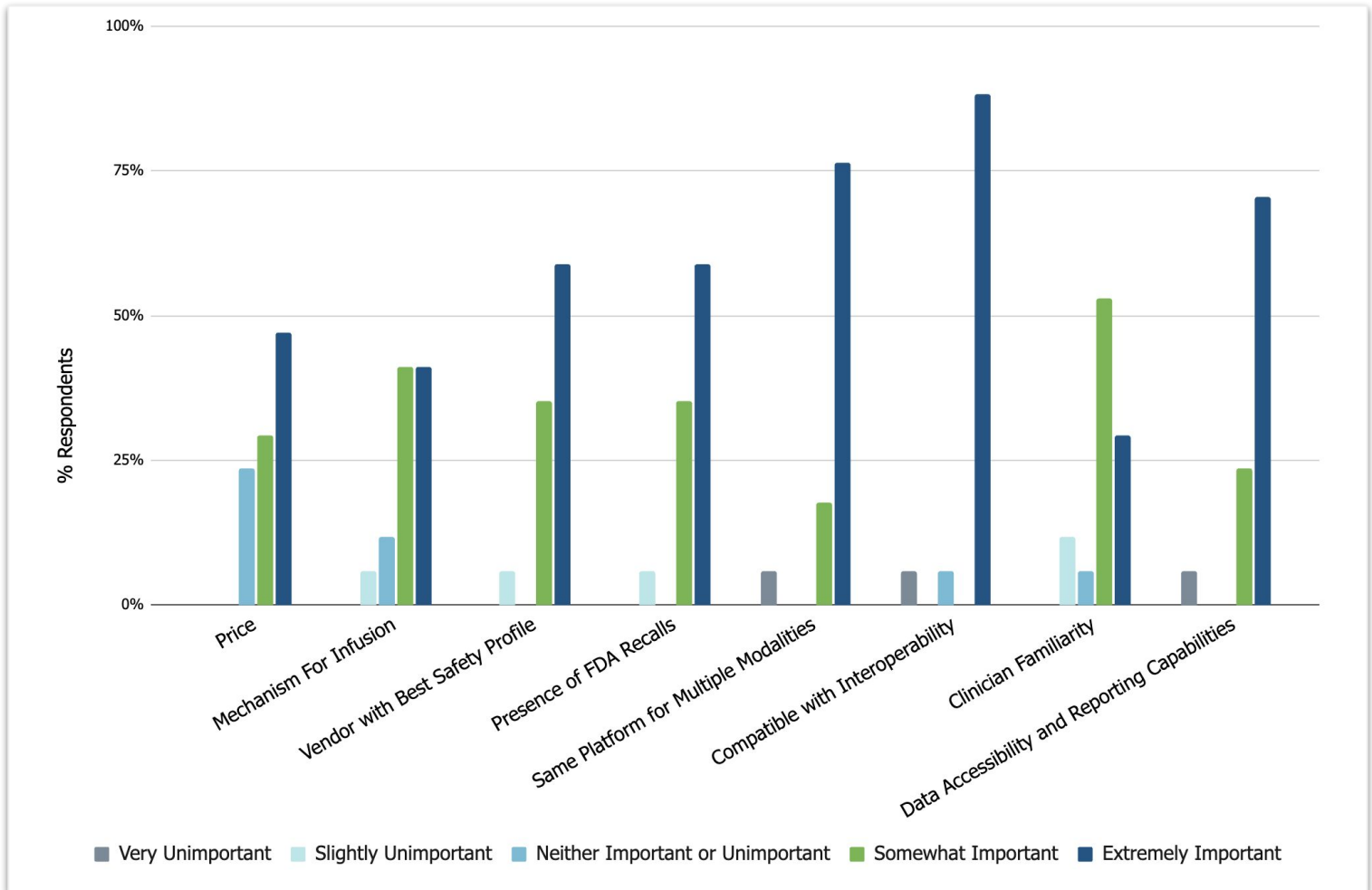


Other: FDA recalls, advancement in technology, and financial considerations

2024 National Infusion Collaborative Pump Transition Survey

Conducted May 2024 of NIC members

Values Most Important in Deciding to Transition to New Smart Infusion Pumps



Summary

- Compatibility with interoperability is the top priority for those considering new infusion pumps
- Alignment of pump types and libraries across health systems is important
- Biggest lessons learned from those who have transitioned:
 - Create a multidisciplinary team and identify a project lead
 - Leverage end user input
 - Consider additional costs involved (contractual, fluids, tubing, etc.)
 - Ensure pump build matches electronic health record build
 - Investigate wireless strength and wireless capabilities of pumps

NIC Clinical Meetings Recap

Oncology Library Build and Narrowing Limits

December 13, 2023 | [Watch Here](#)

The Winter 2023 NIC Meeting featured **Stacey Lynn English, PharmD, MHCI**, Pharmacy Informatics Specialist from Children’s Hospital of King’s Daughters, and **Jamie Gomes, PharmD**, Pharmacy Supervisor, from Children’s Hospital of Philadelphia.



Stacey shared clinical experiences in **developing oncology-specific medications** within a drug library and Jamie shared her experience **adjusting drug library limits for ISMP high-alert medications**. Bainbridge Health provided a review of the past year's high-level trends in infusion pump metrics and utilization across the NIC network.



Children's Hospital of The King's Daughters



Data Innovations and Drug Library Consolidation

March 20, 2024 | [Watch Here](#)



Yale NewHaven Health

The Spring 2024 NIC Meeting featured **Kim S. Walker, PharmD, MPH**, Senior Pharmacy Specialist at Yale New Haven Health, and **Jennifer Kunkel, PharmD, BCPS, BCCCP**, Medication Safety Pharmacist, and **Jessica O'Sullivan, PharmD, BCPS, PMP**, Senior Clinical Informatics Specialist at Jefferson Health.

Kim discussed **innovative uses of infusion pump data for addressing patient safety issues** while Jennifer and Jessica shared insights from a recent **multi-hospital drug library merge project**.

Looking Ahead

Join us for the Fall NIC meeting **Wednesday Sep 25, 2024**. Future topics include an update from ASHP Standardize 4 Safety and Interoperability. Please contact us with future topic ideas or interest in sharing your stories.

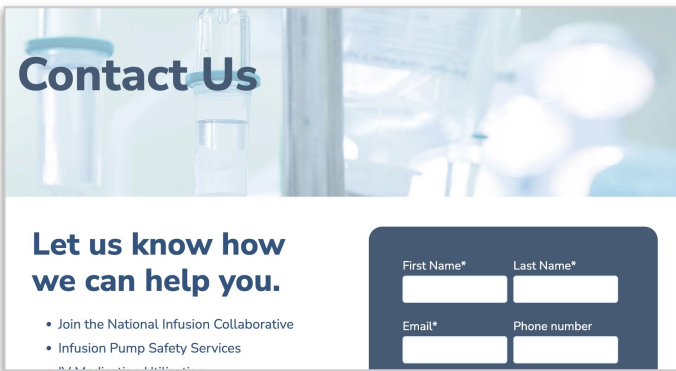
September 2024

SUN Sep 1	MON 2 Labor Day	TUE 3	WED 4	THU 5	FRI 6	SAT 7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25 National Infusion Coll	26	27	28

Question? Comment?

From future topic ideas to general feedback, we want to hear from you.

[Please email us here.](#)



Contact Us

Let us know how we can help you.

- Join the National Infusion Collaborative
- Infusion Pump Safety Services

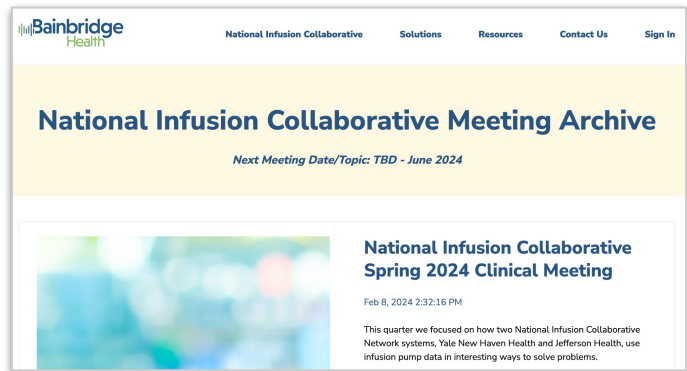
First Name* Last Name*
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Missed a Meeting?

The NIC Meeting Archive is accessible to all NIC members.

[Click here to access the archive.](#)



Thank you to the non-hospital members who support the NIC



UMassAmherst

Elaine Marieb Center for Nursing and Engineering Innovation



Regenstrief Center for Healthcare Engineering