Society of Thoracic Surgeons
Adult Cardiac Surgery Database

Quality Improvement Series:
Decreasing Vent Times Wrap Up
Harvest 1 2024
Introducing Decreasing Blood Usage

October 16, 2024

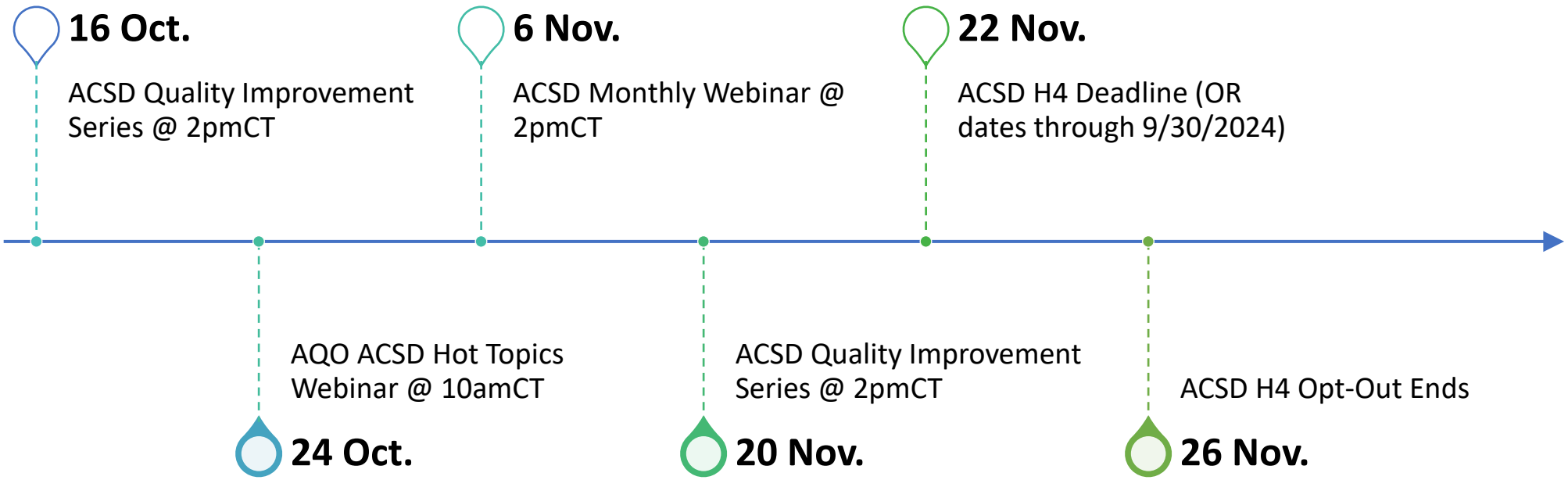
Agenda

WELCOME AND INTRODUCTIONS

REVIEW VENT TIMES DATA

KICK OFF BLOOD USAGE

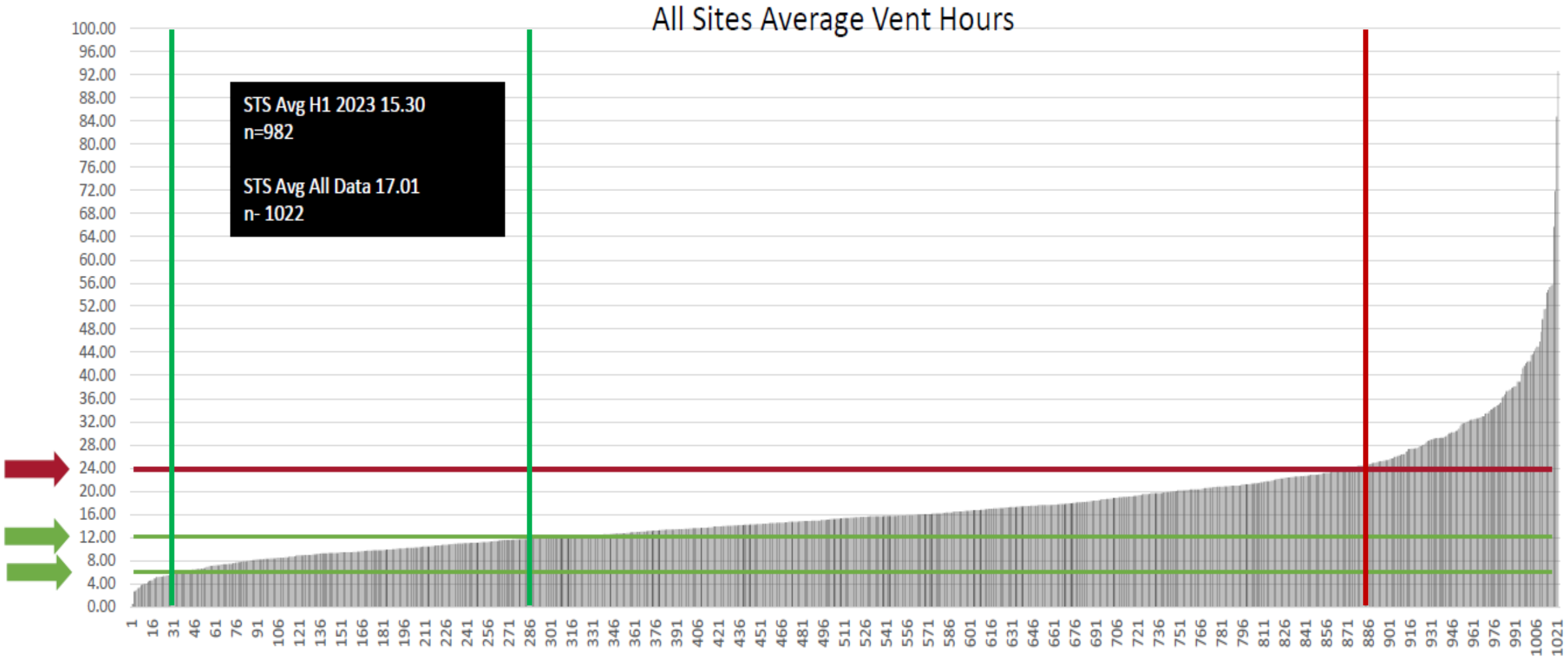
Important Dates for Adult Cardiac



STS National Database™
Trusted. Transformed. Real-Time.

Where We Were Harvest 1 2023

Isolated CABG – ProcID 1

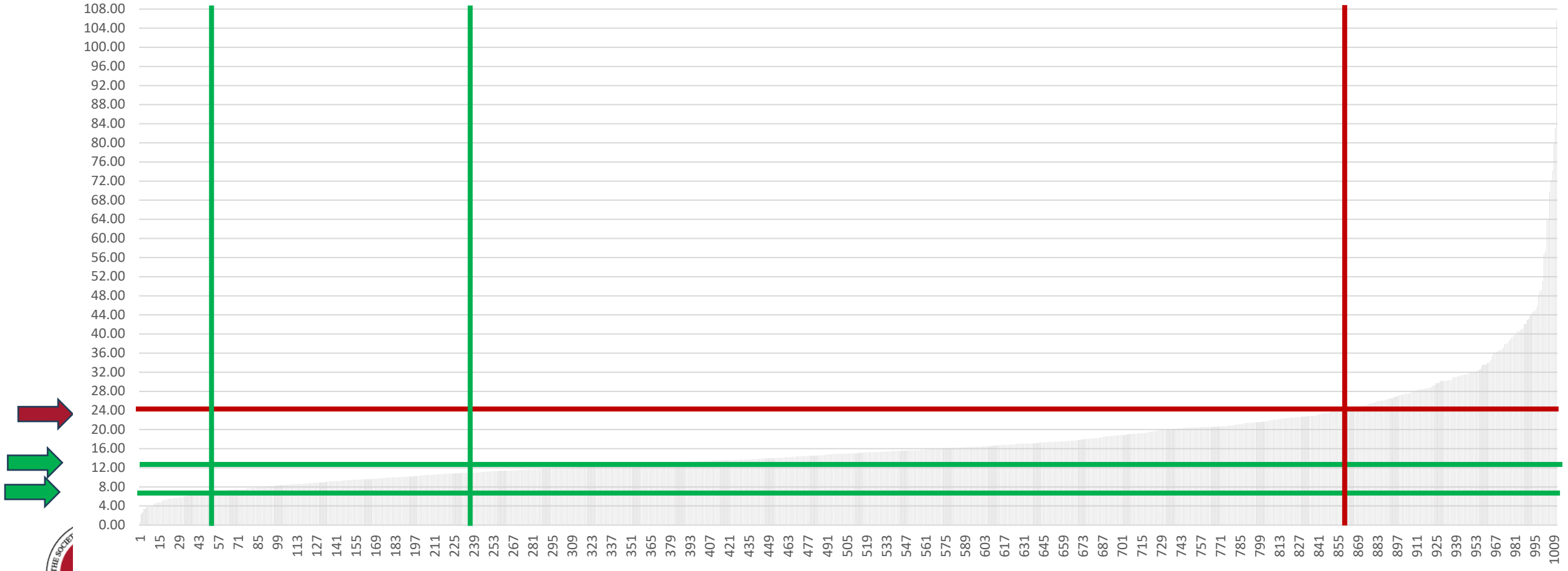


ProcID 1
STS Avg H3 – 14.42 (15.30 H1)
927 sites
n = 449053

All Avg STS Data =
17.11
1011 sites
n = 459061

Where We Were for H3 2023

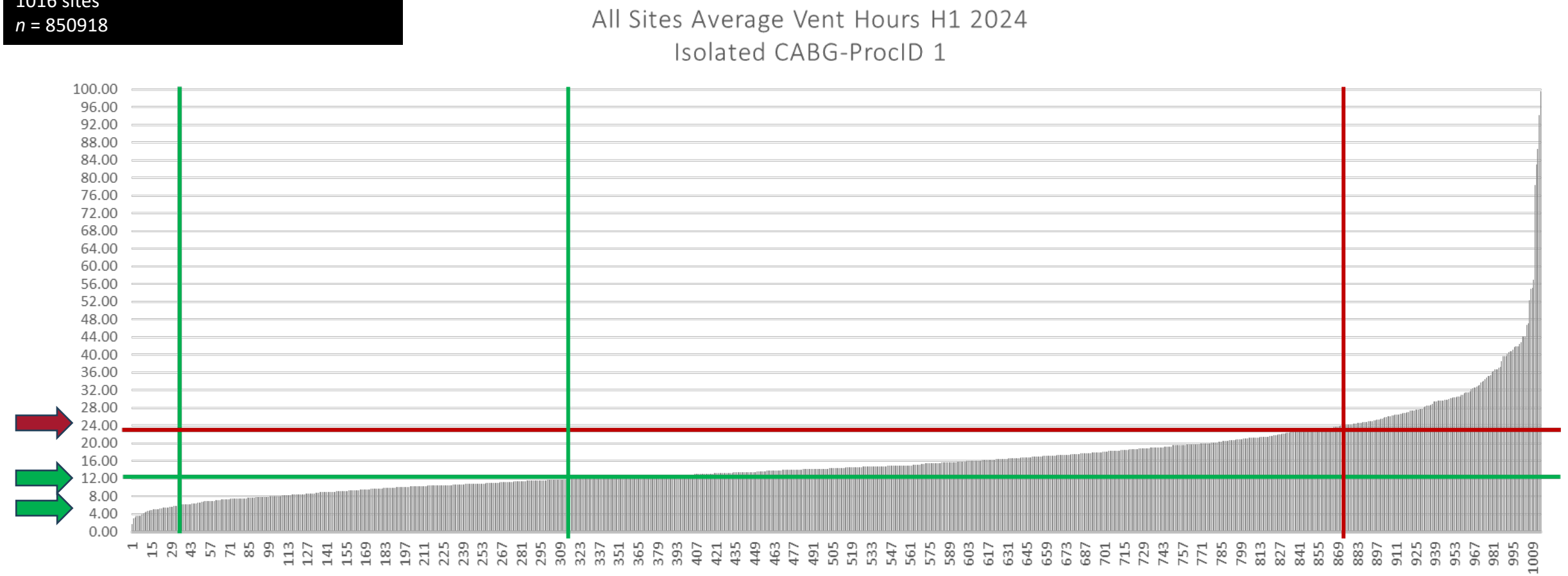
Avg Vent Time



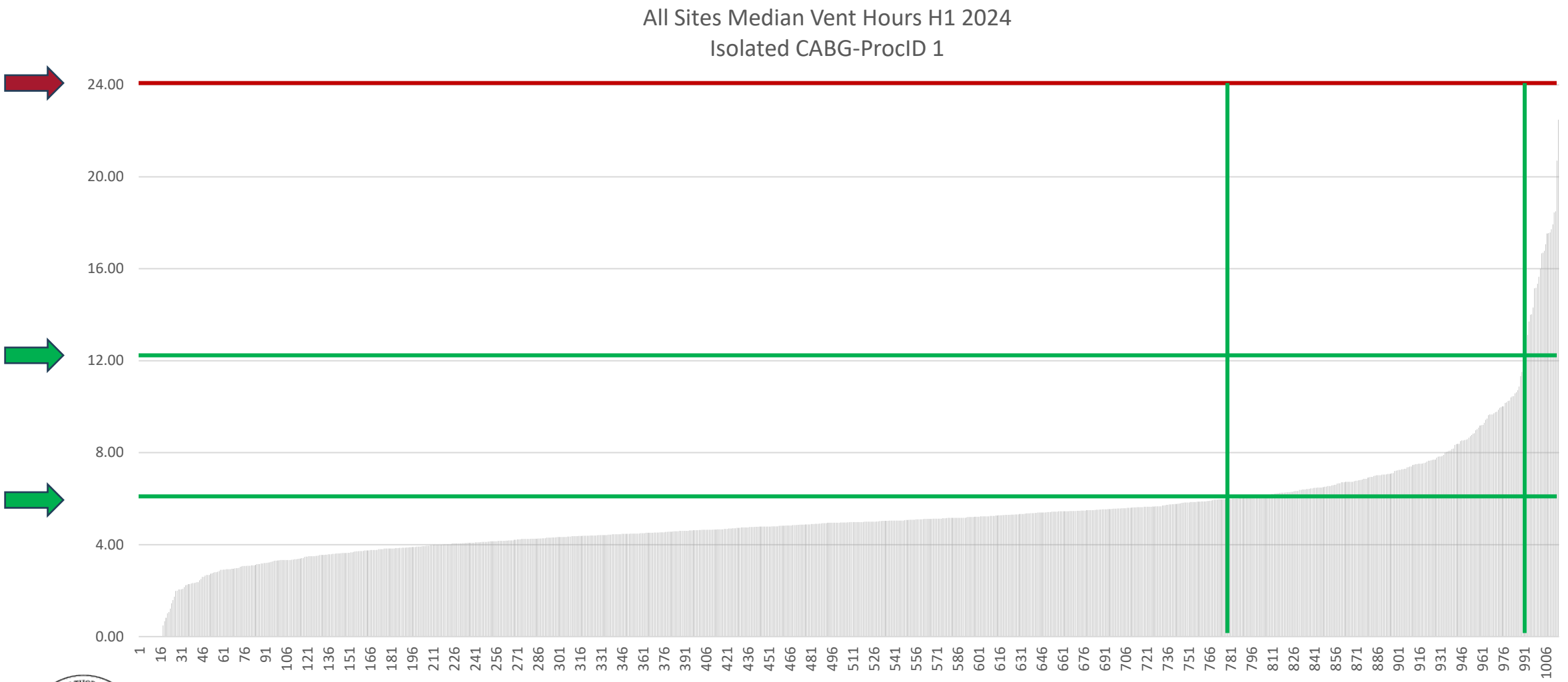
ProcID 1
STS Avg H1 – 16.53
1015 sites
n = 468001

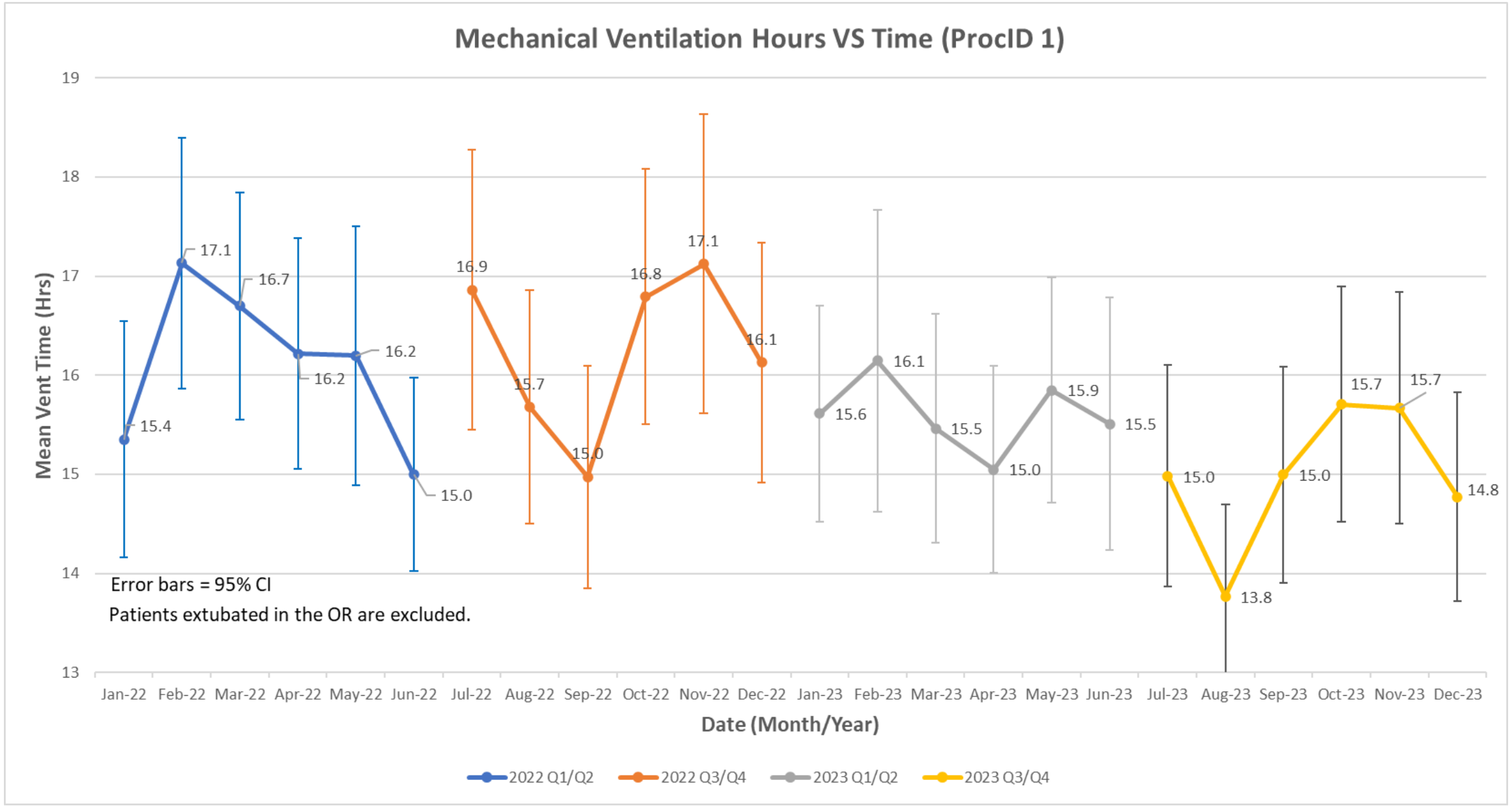
All Avg STS Data H1=22.69
1016 sites
n = 850918

Where We Are Now H1 2024



All Sites Median Vent Hours H1 2024

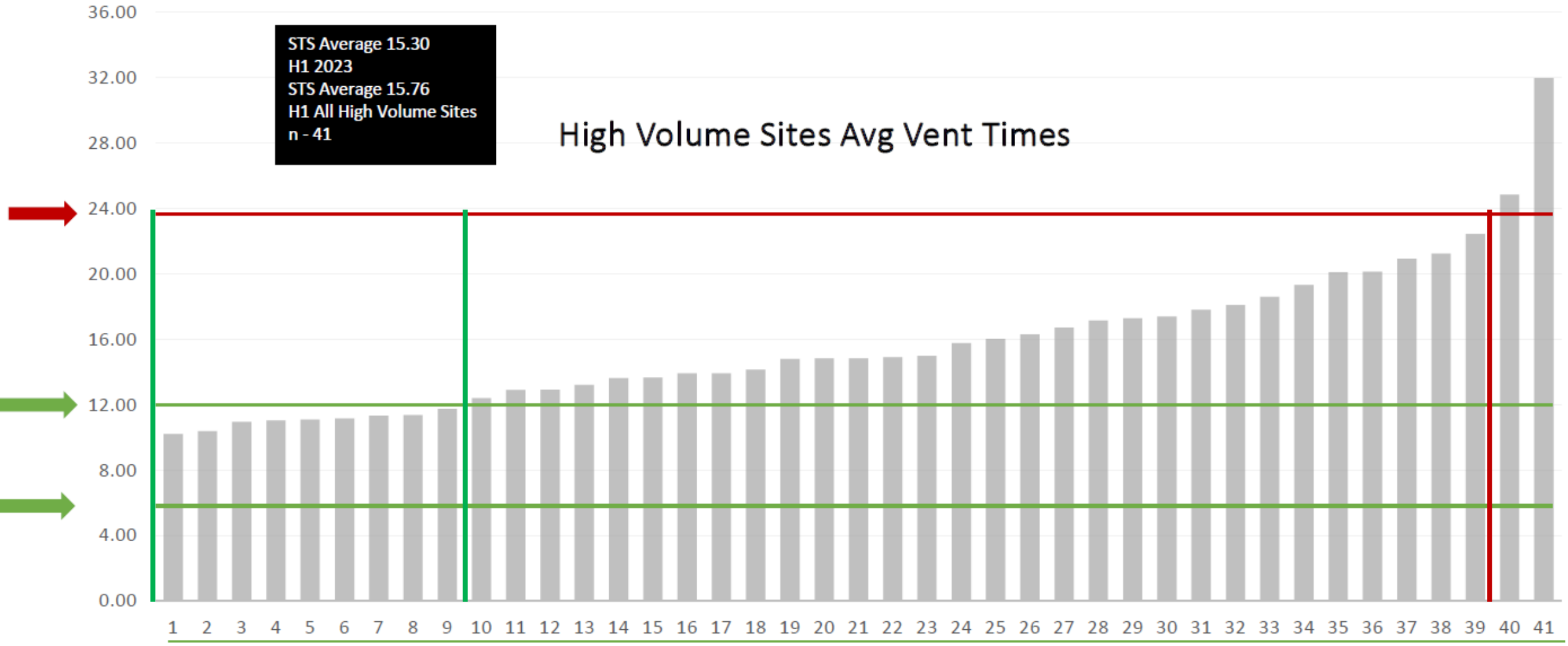




P values shown on the graphs reflect results of difference in difference analysis comparing slopes across the four six month time frames (2022 Q1/Q2, 2022 Q3/Q4, 2023 Q1/Q2, and 2023 Q3/Q4)

Where We Were H1 2023

Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599

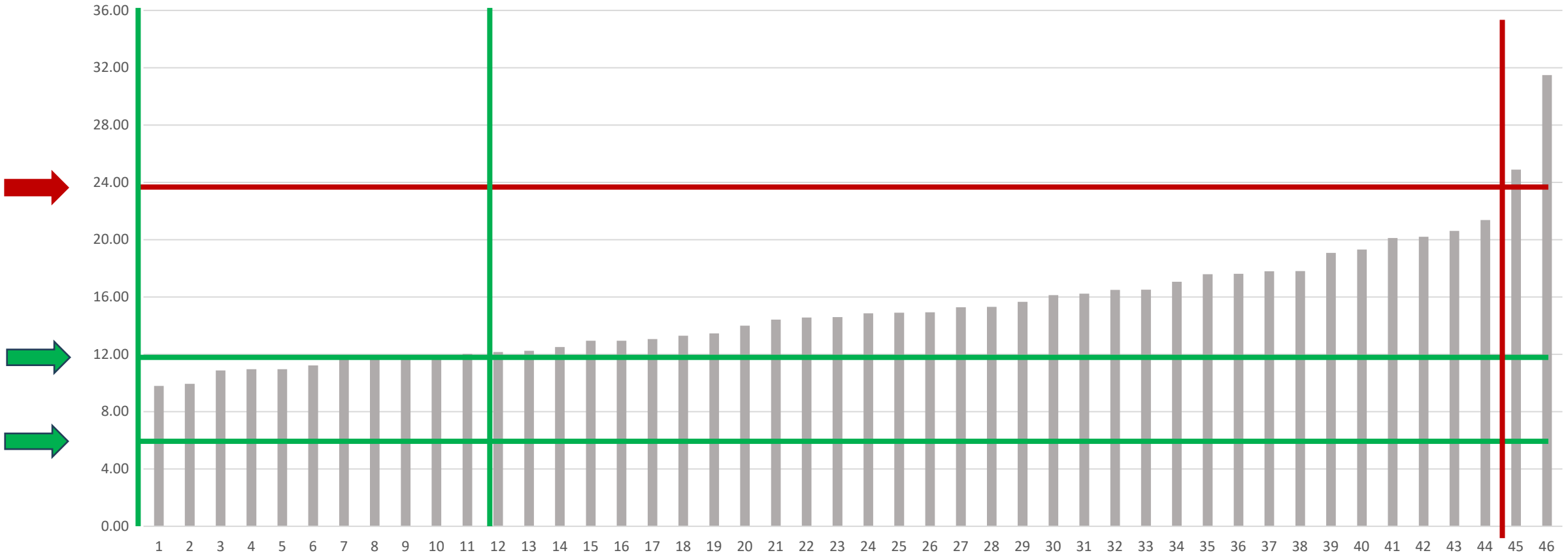


High Volume Sites Avg Vent Time

n = 77688
Participants: 46

Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599

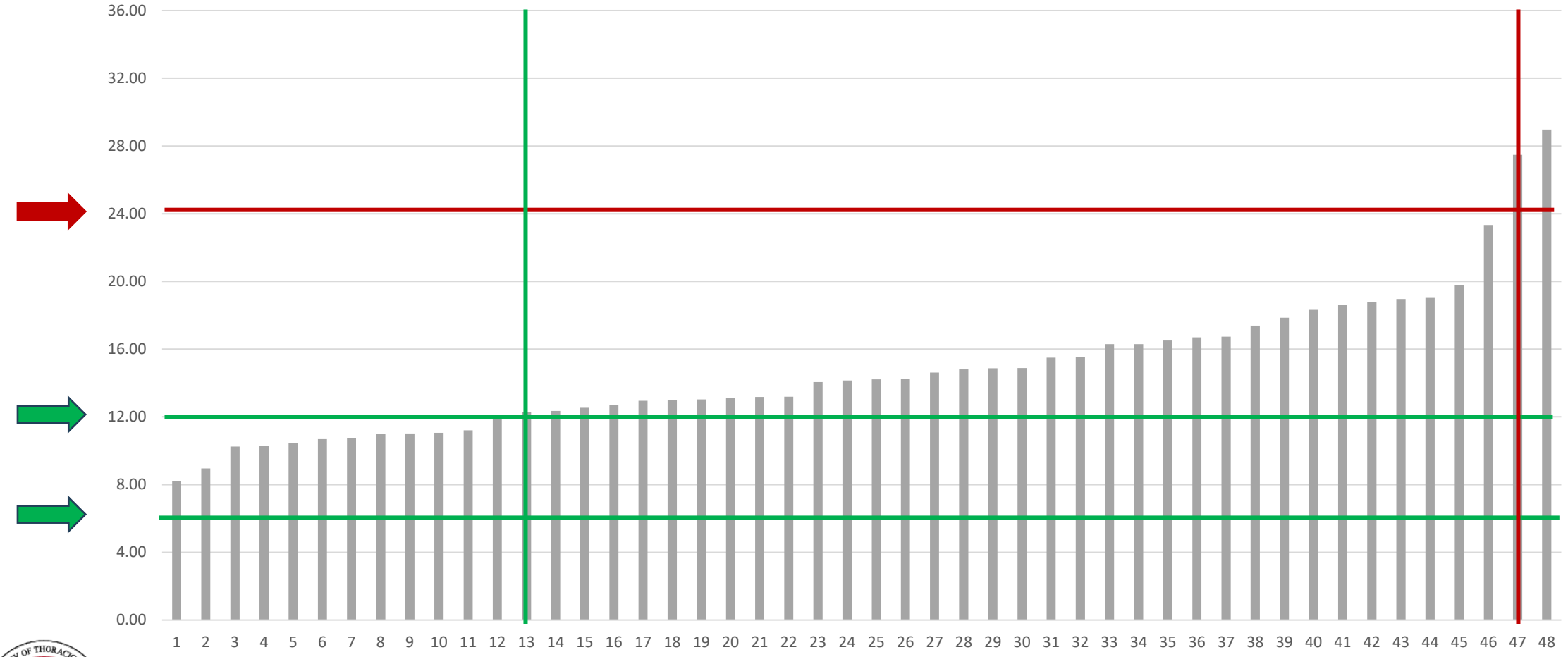
Where We Were H3 2023



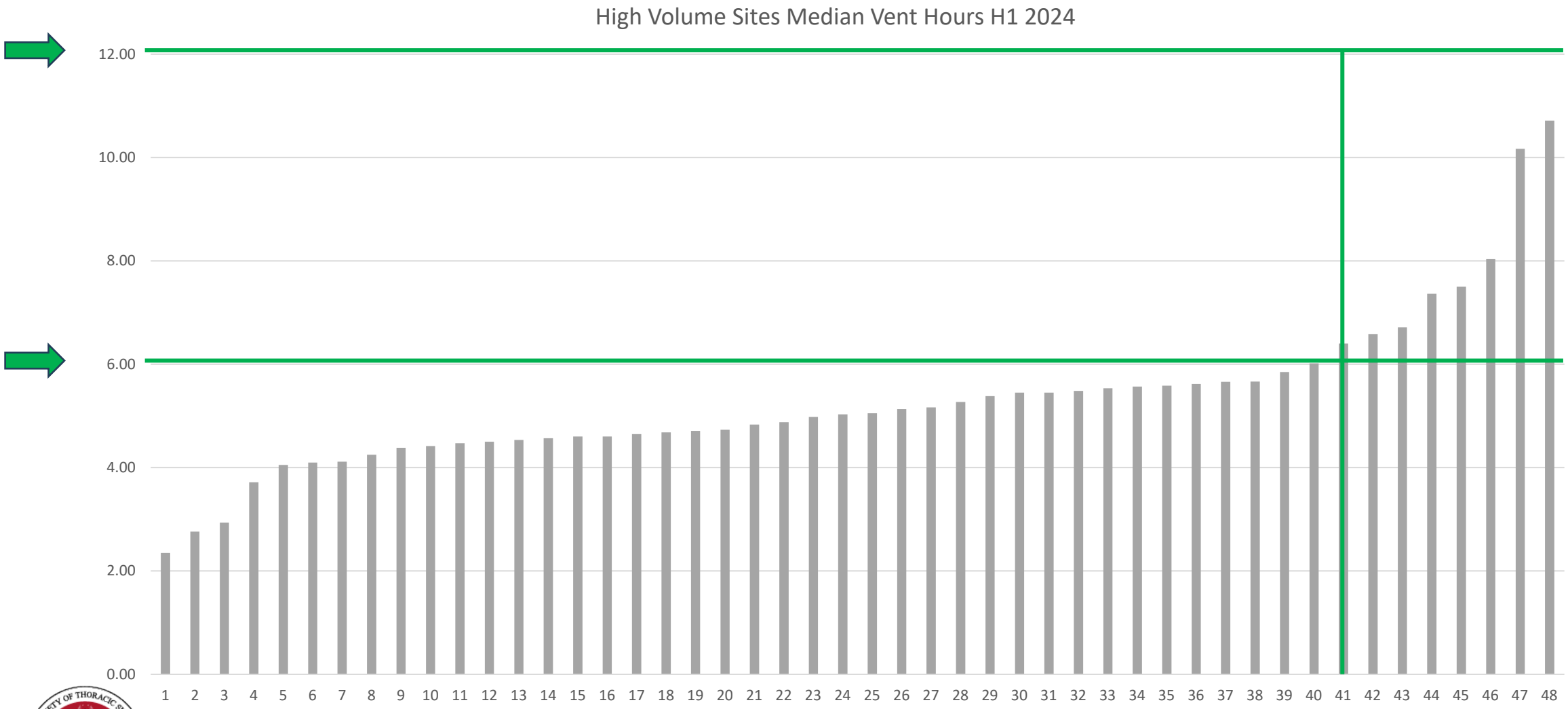
High Volume Sites Average Vent Time

ProcID 1
STS Avg H1 – 14.84
48 sites
n = 82158

Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599



High Volume Sites Median Vent Hours H1 2024



Where We Were H1 2023

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High Volume – 1200 or more
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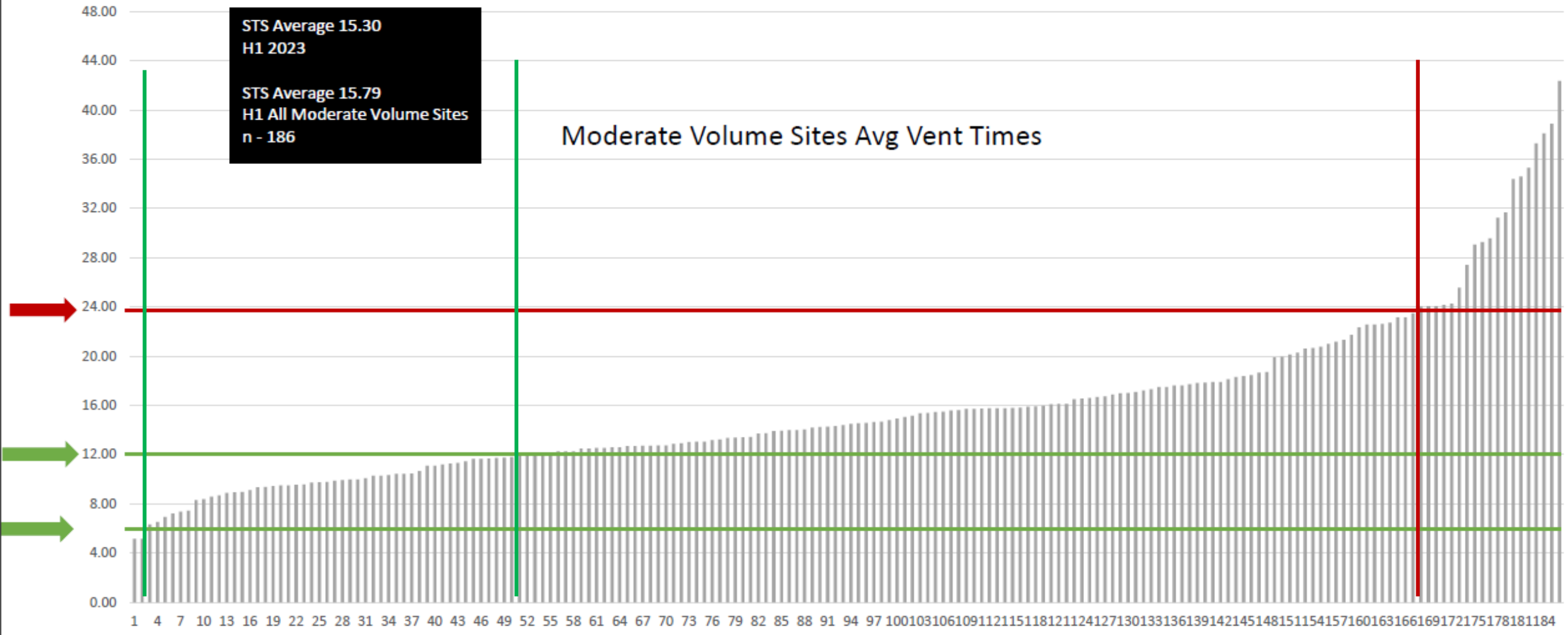
Low Volume – 0-599

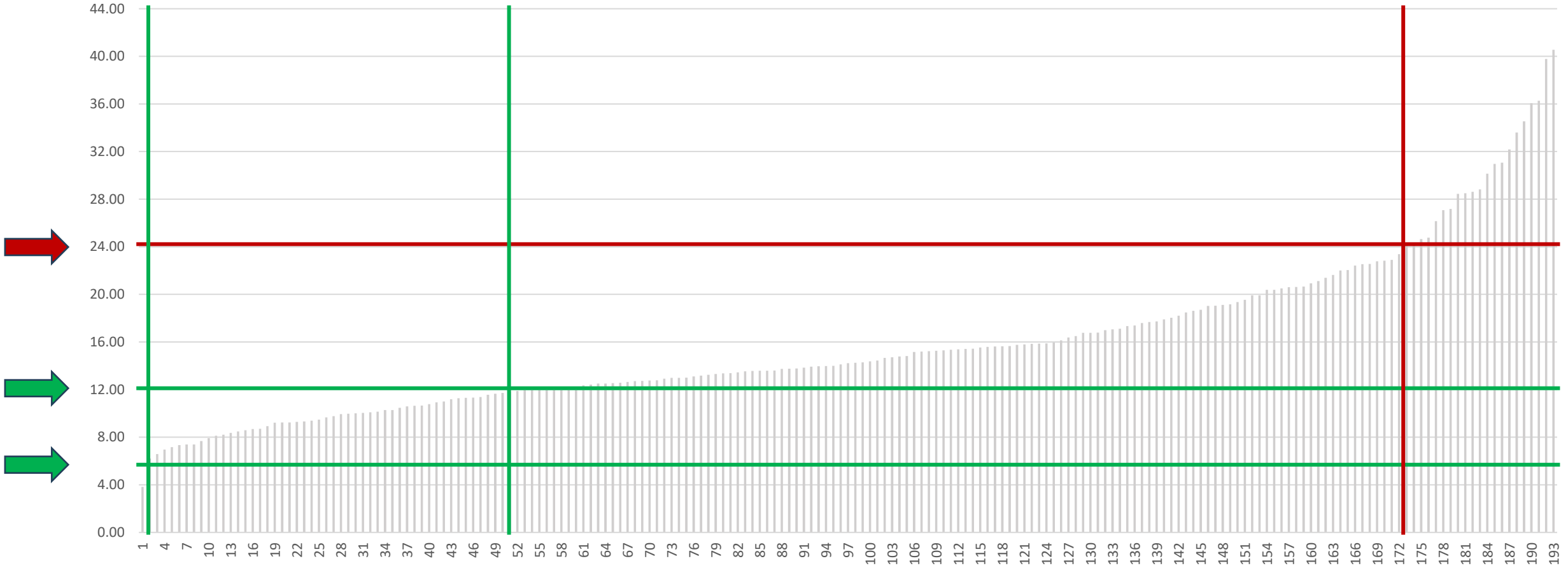


Moderate Volume Sites Avg Vent Times

n = 155625
Participants: 193

Where We Were H3 2023

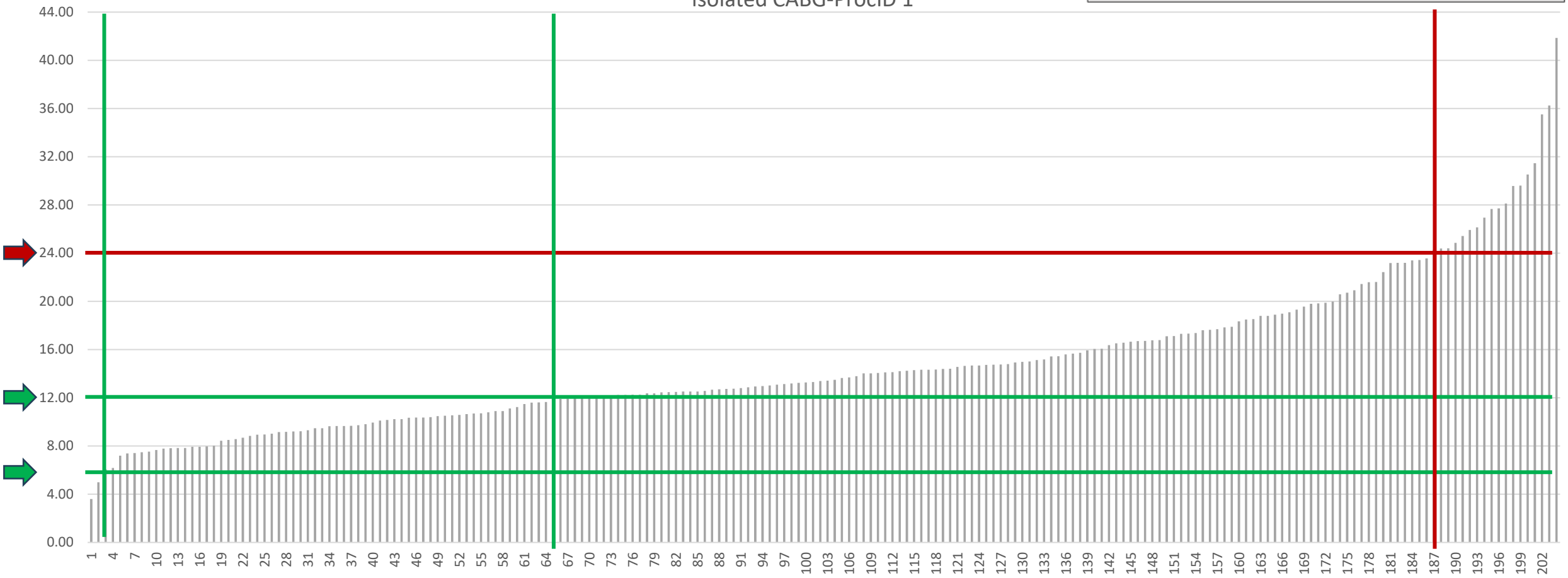
Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599



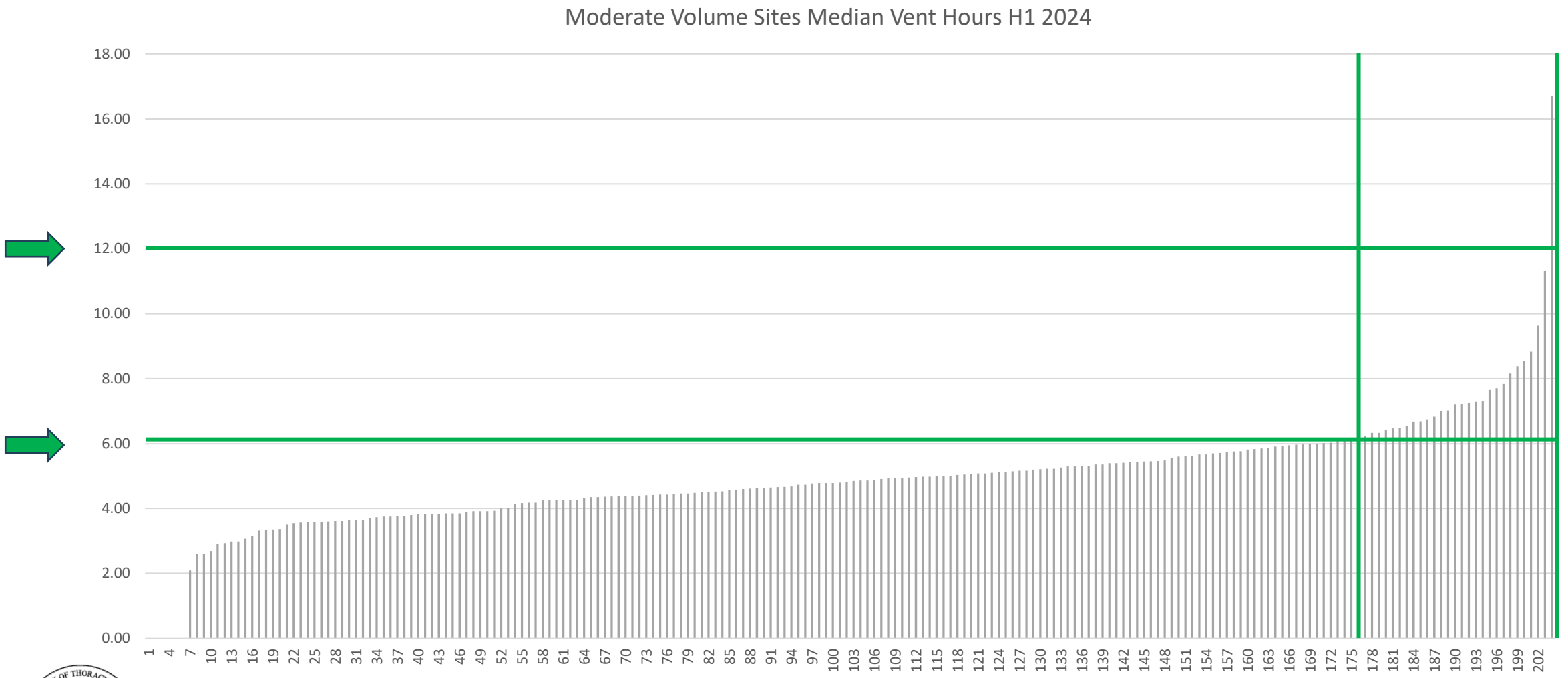
Moderate Volume Sites Average Vent Time

ProcID 1
STS Avg H1 – 14.83
204 sites
n = 164538

Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599



Moderate Volume Sites Median Vent Hours H1 2024



Where We Were H1 2023

Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
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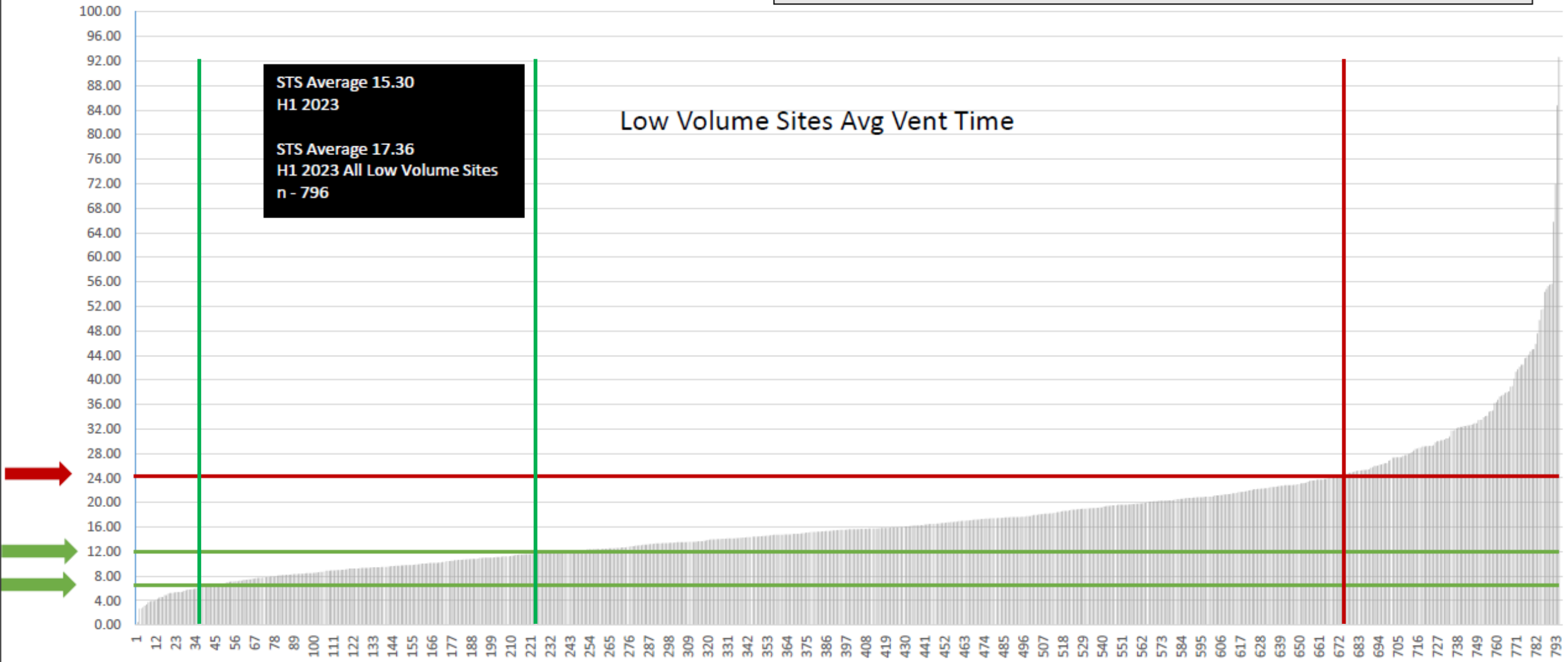


Low Volume Site Avg Vent Times

Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599

n = 225724
Participants = 772

Where We Were H3 2023

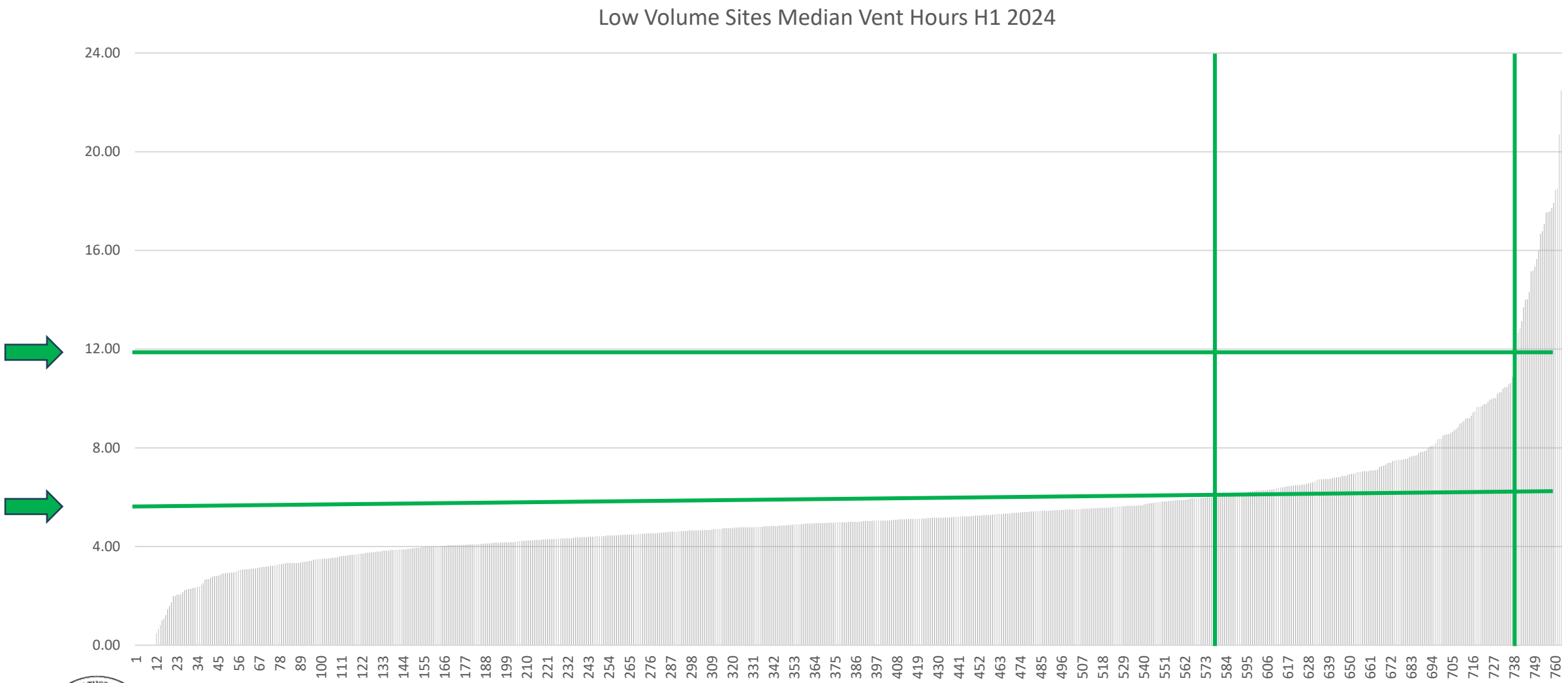
Low Volume Site Average Vent Time

ProcID 1
STS Avg H1 – 16.23
740 sites
n = 221305

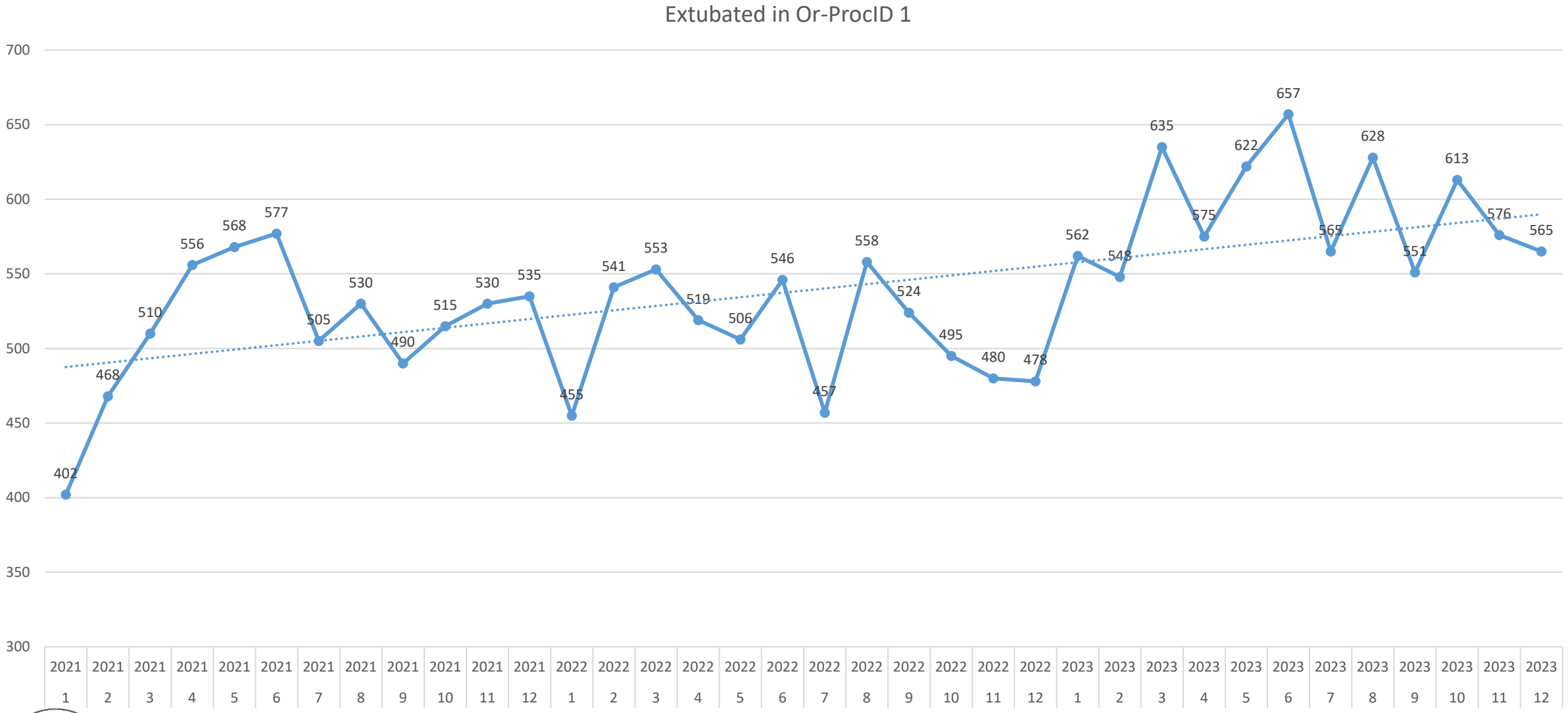
Isolated CABG Case Volume for 36-month analytic window
High Volume – 1200 or more
Moderate Volume – 600-1199
Low Volume – 0-599

Low Volume Sites Average Vent Time H1 2024
Isolated CABG-Proc ID 1

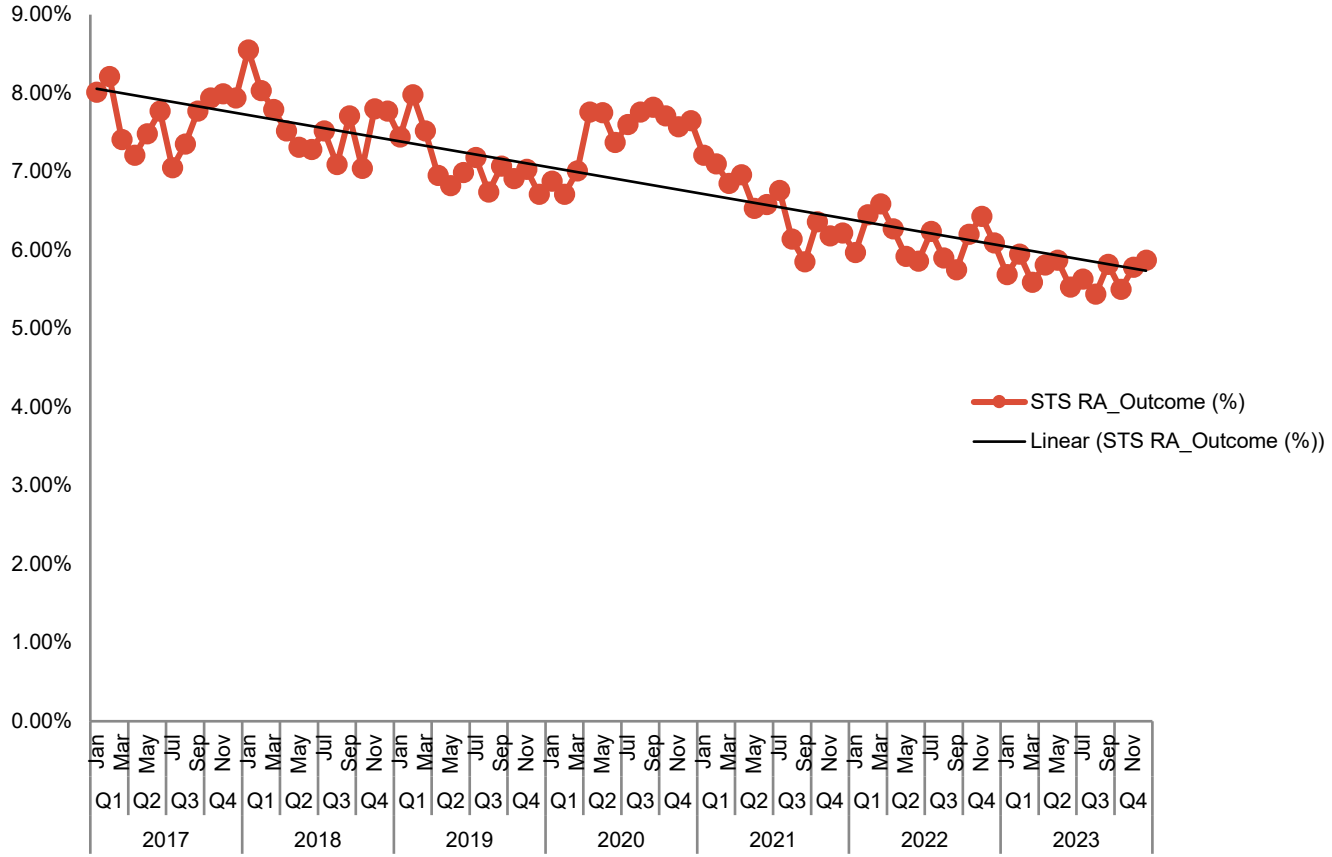
Low Volume Sites Median Vent Hours H1 2024



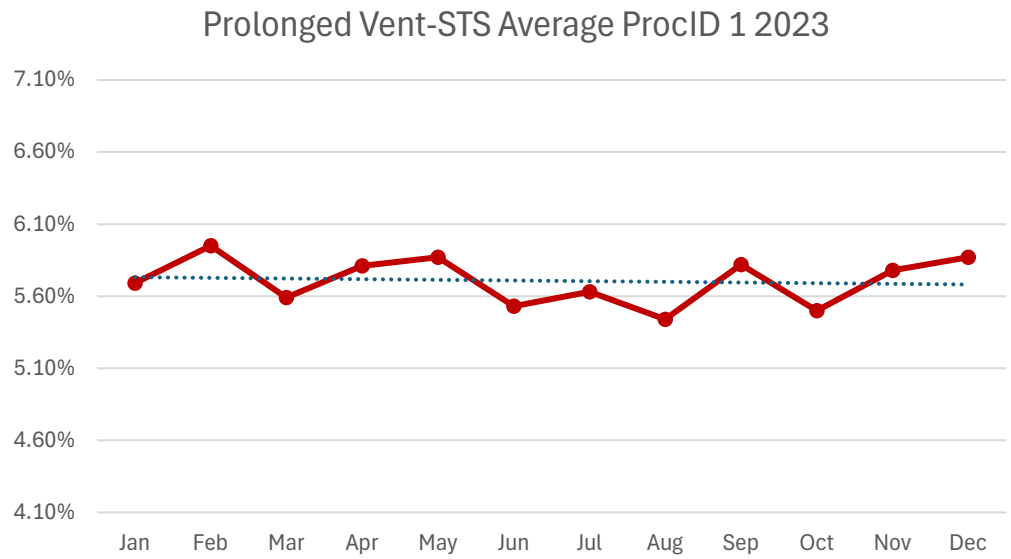
Extubated in OR Case Counts – ProcID 1



Prolonged Vent – STS Average ProcID 1



2023											
Q1			Q2			Q3			Q4		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5.69%	5.95%	5.59%	5.81%	5.87%	5.53%	5.63%	5.44%	5.82%	5.50%	5.78%	5.87%



We Did It!!

STS NDB Quality Improvement Series

To show value of the database – outside of just getting reports

Making the data actionable

Showing how important you are in abstracting data

Improving patient outcomes!!

Be part of a NATIONAL TEAM EFFORT in improving patient outcomes!!

(did I mention patient outcomes!)

Because it's awesome to work toward something together ☺

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STS NDB Quality Improvement Series-Why Decrease Blood Usage?

Infection (rare, but can happen)

HIV

Hepatitis

Bacterial infection

Immunologic reactions

Febrile nonhemolytic transfusion reactions

Anaphylaxis

ABO mismatch

Hemolysis

Leukocyte-related target organ injury

Transfusion-related acute lung injury (TRALI)

Post-transfusion purpura (rare)

Transfusion errors

Donor-related

Care team-related

Death

Studies show a correlation between perioperative blood transfusion and higher mortality rates

Decrease Length of stay

Decrease Cost

STS NDB Quality Improvement Series – Reducing the Use of Blood Products Nationally

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Kickoff November 20, 2024

Define

- Nationally decrease blood usage intraoperatively and postoperatively in the CABG population over the next 12-24 months. Will measure quarterly using the STS ACSD harvest analysis reports.

Measure

- H2 2024 analysis shows a benchmark rate for intraoperative blood use of 24.52% and a benchmark rate for postoperative blood use of 27.89%.

Analyze

- Using the STS Harvest Reports and local data, sites will implement processes at their sites to decrease intraoperative and postoperative blood use. STS will provide education and support for the processes.

Improve

- Will engage site leaders who have already initiated blood conservation projects and decreased their blood usage to provide education on webinars and be available as resources.

Control

- Will track this monthly to see improvement nationally.

November 20th– Kickoff!

If your site has had success implementing a blood conservation project and decreasing blood usage, we invite you to share your story with us on an upcoming ACSD QI Series Webinar!

Engaging Stakeholders

Improved patient outcomes	Decrease risk of bad outcomes	Decrease cost/resources	Improve STAR Ratings!

Are you able to institute quality improvement projects at your hospital?

If not, please share this with the quality team and ask them to join the webinar on November 20– we don't want to leave your site behind!

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Contact Information

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- Nancy Honeycutt, STS National Database Manager, ACSD, Intermacs/Pedimacs
  - nhoneycutt@sts.org
- STSDB@sts.org
  - Database Operational Questions (Billing, Contracts, Contacts)
- STSDB_Helpdesk@sts.org
  - IQVIA/Database Platform Questions (Uploader, DQR, Missing Variable, Dashboard, Password and Login)

Open Discussion

Please use the raise-hand function.

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!