

AGENDA

INFORMATION TECHNOLOGY COMMITTEE

Meeting Date: September 12, 2022

Time: 11:00 AM

Location: 50 Water St 17th Fl

BOARD OF DIRECTORS

CALL TO ORDER

MR. PEÑA-MORA

ADOPTION OF MINUTES

June 13, 2022

CHIEF INFORMATION OFFICER REPORT

DR. MENDEZ

OLD BUSINESS

NEW BUSINESS

ADJOURNMENT

NEW YORK CITY HEALTH + HOSPITALS

MINUTES

Meeting Date: June 13, 2022

INFORMATION TECHNOLOGY COMMITTEE

ATTENDEES

COMMITTEE MEMBERS

Dr. Mitchell Katz, Chair
Feniosky Pena-Mora,
Sally Pinero, representing Jose Pagan

NYC HEALTH + HOSPITALS CENTRAL OFFICE STAFF:

Dr. Kim Mendez, SVP/Corporate CIO
Dr. Michael Bouton, Corporate CMIO
Jeff Lutz, SAVP, Chief Technology Officer
Apoorva Karia, AVP, EITS Business Operations
Sean Koenig, Chief Application Officer
Soma Bhudari, Chief Information Security Officer
Lisa Hendricks, Ambulatory Care & Population Health

INFORMATION TECHNOLOGY COMMITTEE – June 13, 2022

AS REPORTED BY: Dr. Mitchell Katz

COMMITTEE MEMBERS PRESENT: Dr. Mitchell Katz, Feniosky Peña-Mora, Sally Hernandez-Piñero
representing Jose A. Pagan in a voting capacity

Dr. Katz called the June 13th meeting of the Information Technology (IT) Committee to order at 11:03A.M.

In accordance with Section 14 of the By-Laws: Committee Attendance. If any member of a standing or special committee of the Board will not be present at a scheduled committee meeting, the member may ask the Chair of the Board to request that another Board member, not a member of that committee, attend the scheduled meeting and be counted as a member for purposes of quorum and voting.

Chairperson José Pagán has delegated Ms. Sally Hernandez- Piñero to be counted for the purpose of quorum and voting at this meeting.

Dr. Katz proposed a motion to adopt the minutes of the joint Medical and Professional Affairs / IT Committee meeting held on April 11th, 2022. It was then clarified for the record the meeting was not a joint committee meeting, only an Information Technology committee meeting was held.

Upon motion made and duly seconded the minutes of April 11th, 2022 IT Committee meeting was unanimously approved.

Dr. Mendez turned over the meeting to Lisa Hendricks of Ambulatory Care and Population Health who presented to the Committee a request for an increase NTE to the existing Lumeon contract to cover an expansion of services. She provided background regarding the original 2018 RFP that was conducted for an automated patient appointment reminder system. Lumeon was selected and approved for a three-year contract through fiscal year 2022 with two one year optional extensions through fiscal year 2024. The original Not to Exceed (NTE) was based upon estimated development and appointment volume for only our primary care and women's health services.

As of February 2022, all primary care and specialty clinics rely on automated patient reminder, patient appointment reminders, which are sent via text messages, automated phone calls, or emails based on the patient preference and Epic (H20). Text and email reminders are in 14 languages and patients can respond to confirm or cancel their appointments and these responses are integrated within EPIC. Daily reports, accessible to the sites, provide actionable data so that the sites can see their visits and cancellation within the recording. Ambulatory Care has also been able to use these types of reminders for

alerts for proactive communication to change to virtual visits due to natural situations like an impending blizzard or storm.

Ms. Hendricks then presented graphical information showing a background of spend. This information illustrated how by adding in additional clinics and additional appointment reminders, the monthly spend would increase.

Ms. Hendricks stated to the committee that based on additional use cases and feedback back from clinics and patients, Ambulatory Care is being asked to extend the appointment reminders across all ambulatory care practices, including specialties. Specialty appointments account for over 50% of all ambulatory care appointments and missed specialty appointments can lead to delay in care which can have clinical implication.

The proposal is to increase the NTE by \$4.7 million dollars, taking the NTE from 3.8 million to 8.5 million. As of, April of this year, \$2.87 million has been spent with the expansion and continuing appointment reminders. It is expected to reach the original NTE amount by the end of this calendar year. The projected spend going into the next two years of one-year extension for 2023 is 2.8 million and then through June of 2024 end would be 1.9 million. As part of the first year of the contract extension, a better pricing structure was negotiated with Lumeon that allows for not only an additional cost decrease, but volume decreases as the appointment reminders increase.

Ms. Hendricks went on to mention that to date, the vendor performance has been very satisfactory. She also stated other healthcare customers that currently use Lumeon include the Jewish board located in New York City, Tech Medical at USC, Kaiser Permanente, Colon Cancer Alliance, and the Reliance Medical Group. It was also noted a new RFP would be sought for an automated patient communication service during the first year of the extension period.

Ms. Hendricks provided insight into some of the reasons for the program expanding to all of the ambulatory care practices including aligning with industry standard, improving patient experience. It was noted that receiving appointment reminders is a cost effective, centralized system and a decrease in administrative time which allows a focus more on patient centric activities.

Ms Hendricks presents a testimonial from Dr. Vorsanger of Bellevue Cardiology. They've seen a more effective way of rescheduling and seen a historical no-show rate of 35 to 40%. They've seen a great reduction

of 10 to 20% as they're looking at specific weeks and March where their no-show rates declined. Based upon some patient feedback, it was found that getting the appointment reminders was very helpful and it made canceling or rescheduling their appointment much easier. Feedback from the administrative staff, Amy Harris of Elmhurst, noticed a significant drop in their women's health service no show rate from 33% to 2.

Also with their rehabilitation and physical departments, they saw more than 50% of those types of appointments down to 25 to 30%.

Elmhurst was able to successfully reach out to patients during a big snowstorm last January, using the appointment reminder system to communicate to the patients and notify them of cancellations or changes. Additional graphical information was provided to show patient satisfaction survey. A 77% response rate to the survey and 97% of those patients found that the appointment reminder was very helpful. It also showed a look at the ambulatory care no show rates, highlighting

a near 50% reduction of appointments from the January to July 2019 period through April 2022. In addition to the appointment reminders for ambulatory care services, the team also rolled out the service for other use cases. A couple of use cases that are already in production are the mobile insulin titration intervention program, NYC Care membership renewal and quarterly newsletter notifications. Other departments that have expressed interest in the service, and incorporation new types of reminder such as surgery appointment reminders, family member caregiver surgery, and text notification.

Ms. Hendricks went on to present information regarding Lumeon MWBE status. She noted that when the contract procurement was conducted in 2019, this was prior to the system adoption of the vendor diversity policy and a blanket 30% MWBE requirement. Based upon the new policy, the goal would have been set at 3%, with implementation services being the only subcontracted portion of the work. Much of the Lumeon work is self-performed, with a lot of the cost tied to licenses.

In 2019, Lumeon was granted a total waiver based on the following, the software is owned by the company and self performs all services except for the hosting, and the hosting is done through AWS who is a Lumeon customer. A waiver in such circumstances is consistent with the business model expectation. A diversity analysis was completed 100% gender was reported by all employees that broke down into about 50% female/50% male with the leadership team and 43% Female to 57% Male amongst the employees. 42% of all employees voluntarily reported their race and ethnicity.

Ms. Hendricks presented vendor performance evaluation and the vendor has performed well to our performance expectations and standards. They have been very receptive and been a great partner to work with.

Ms. Hendricks summarized in her conclusion, the request to increase the original NTE that was set to \$3.8 million which only covered primary care and women's health services. The increase would account for the expansion of the appointment reminders to all of Ambulatory Care Services, especially the specialty appointments, as well as the additional use cases that have been requested across the System. The total new contract value that is being requesting of \$8.5 million. 6.674 million is attributed to the ambulatory care appointment reminders of that about 121,000 was for development services. Most of that development was done in the initial phase of the rollout. \$763,000 accounts for the additional use cases that are ongoing or set to go into production which sums to 1.1 million.

As the approved NTE will reached by the end of this calendar year the increase would ensure Ambulatory Care can continue with increased demand for Lumeon's services to improve the care and patient experience. Ms. Hendricks concluded her presentation.

Dr. Katz thanks Ms. Hendricks for her presentation and then requested Dr. Mendez to formally read the resolution so that is officially part of the committee meeting record.

Resolution:

Dr. Mendez read the resolution authorizing an increase in the funding for the New York City Health and Hospitals Corporation, the System, to contract with LUMEON, Inc. for an automated patient appointment reminder service, which was made in early 2020 for a three-year term, with two one-year renewal options available to the System from its original funding limit of \$3,842,760 to a new not to exceed limit of 8,553,000.

Dr. Katz polled the committee for questions and Ms. Hernandez-Piñero stated she had a number of questions. She asked to clarify the amount for the original 3-year period and the cost for each one year

extension. Ms. Hendricks stated that the 3.842 Million was to cover the 5 years, with no distinction, of original three years plus two one-year extensions. Ms. Hendricks then presented graphical information showing the project spends, if expanded to specialty services, would hit the NTE by the end of this year with the increase of the number of departments from 48 to 78. Ms. Hendricks goes on to explain that specialty appointments represent more than 50% of the total appointments and would increase as more specialties are added.

Ms. Hernandez-Piñero asked when does the patient make the selection whether they receive automated or text messages and it was stated the choice is located in their EPIC chart. The next question posed was in regards to the evaluation of effectiveness, is there a breakdown of whether people preferred automated text or email. Patient Survey participants were asked a choice and the majority of the patients receive a text communication.

Ms. Hendricks stated the payments is based upon the number of text messages, emails and automated phone calls. Depending on the message, each text message is 160 characters so depending on the service, one message may be two text messages, one message may be three. So we may be billed by text message not by total message or patient which accounts for the sharp incline. Ms. Sally then asked Ms. Hendricks to clarify what is proactive communication. Ms. Hendricks stated it's a proactive reminder ahead of the appointment. Patients are contacted two days before their appointment, to remind them of their appointment.

Mr. Peña-Mora questioned whether a chart similar to slide three showcasing the forecast the usage for 2023 and the first half of 2024 to correlate with expenditure that is forecasted during that period. She stated it would be helpful for the board meeting. Ms. Hendricks stated she would provide that information.

Mr. Peña Mora had a follow up question regarding the MWBE analysis. He suggested to be explicit and clarify for the board meeting, so we have reason to hope that in the rebid, which we will be working on shortly, because this is just a one-year extension, that this contractor would either do better or some other contractor would do better on the MWBE.

Dr. Katz requested a copy of corporate social responsibility (CSR) statement which would be helpful. He also stated it would be helpful if there were some examples or initiatives that they are undertaking in terms of implementing the CSR statement. Ms. Hendricks referred to the one-page Lumeon CSR statement and highlighted the aspects.

Ms. Hernandez-Piñero had a follow up question and wanted to know how much was spent toward the initial development costs. Ms. Hendricks stated that initially, for the primary care and women's health, it was a little over 100,000 to get started and additional use cases for the mobile insulin intervention that had quite a bit of development.

Ms. Hernandez-Piñero ask if there was a certain competitive advantage or is this something that done easily within the industry, Ms. Hendricks stated there are other companies that do this type of work. Across the board from a development perspective, it is definitely unique to their software but developing and setting up appointment reminders is not unique.

After discussion, upon motion made and duly seconded the resolution was unanimously approved for consideration by the Board.

EITS Update

Dr. Kim Mendez continued with an overview of the IT Update presentation handed the conversation over to Dr. Bouton for the Clinical Informatics update. Dr. Bouton presented graphical information displaying the number of times a user logs into MyChart per year. From a patient portal activation perspective, the System is firmly in the top 10 percentile nationally, where our System's MyChart activation rate is currently at-72%.

Dr. Bouton stated the System recently went live with a new feature that allows a patient who shows up to their appointment to check in directly from their MyChart account if no paperwork is required. Efforts are being made to make a better patient engagement tool and more useful to our patients by releasing 97% of physician notes, nurse practitioner notes with further expansion to speech language pathology notes.

Dr. Bouton then presented an update regarding the Enterprise remote radiology. The short-term model is where a third-party vendor that was doing overnight reads at some of our facilities which will be phased out. The long-term model is where radiologists at multiple sites can support and also work from home. The initial step of providing 10 workstations into the radiologist's home has been successfully. The next step involves a true enterprise system where a radiologist could do reads from across the System depending on specialty which would require an additional 60 radiology workstations and 11 mammogram stations. Dr. Bouton voiced concern in the vendor receiving the hardware based upon the current international situation. Dr. Bouton concluded we have leveraged support from EITS team in order to maintain the equipment at home and are in the process of hiring full time support for the physicians.

Mr. Koenig provided an update regarding recent successful go lives. The first was on May 7, 2022 with our pilot Epic Willow sites, the Epic Willow ambulatory retail pharmacy module which provides our patients outpatient medications. There were few issues to be resolved and at the elbow support continued through June 3, 2022. Major praise was received from Epic as one of their best Willow ambulatory go lives in recent memory. The next Willow Go Live is scheduled for several sites on August 6, 2022 with close partnership with the pharmacy operations team and a more aggressive roll-out schedule. On June 6th, 2022, Kings was the final Go-Live for the new MyAM Addiction Management software which is used for dispensing medications for treating addiction management patients. This new software is replacing a legacy system, AMS. Mr. Koenig concluded by highlighting the EITS team is looking forward to reporting back during our next meeting about the Epic Wisdom 2 (dental) module Go Live for our dental clinics, which is scheduled for July 1, 2022 for about half of the clinics and then the remaining half of the clinics going live in October 2022. Mr. Lutz provided an update regarding the migrations over to the new data centers, primarily focusing on QTS and getting out of the more expensive data center at Sunguard, New Jersey. Current progress was at 50% by the end of May, with 19 move waves which has been consolidated down to less than 12 Move waves. The moves includes over 600 servers that have been migrated covering over 200 applications at the same time. The non-production sites for Ensemble as well as Epic have already been migrated. Dr. Mendez then added that the overall project is on a two-year timeline and the overall application for both of the new data center migrations will be completed by May of 2023.

Dr. Mendez then turned the presentation back to Dr. Bouton to discuss the Epic system optimization. He provided a current scenario of an emergency department admitting somebody to inpatient and could admit people with illogical combinations, such as a pediatric patient and put them in the adult medical Intensive Care Unit. The information would then get cleaned up by admitting office before they went on the back end on the financial side which creating a lot of rework. Cascading logic has now been built into Epic to choose a patient class and gives the services like medicine or surgery that are available for that patient class and as you step down, you only get those levels of care that are available for that service.

He then went on to highlight that Virtual ExpressCare has also continued to expand by providing what is called Smart sets, which is basically just groups of orders that the physician can easily quickly pull up. This new optimization facilitates a one click workflow and really expedites the process. This provided a good example of how the standardize workflow to make sure patients are getting the right level of care and also simplify and make it quicker for physicians.

Dr. Mendez then turned the topic to Mr. Lutz who then went into the continuous quality improvement with the Management Print Services initiatives. As to align with the contract with Canon which has the ability to consolidate the number of printers and to make sure that a more efficient and secure print environment exists. Mr. Lutz provided graphical information showing the four pillars that include technology, optimization, user behavior and consolidation. Additionally, Mr. Lutz highlighted the concept Unprint to reduce our carbon footprint.

Dr. Mendez stated in her closing discussion that we are leveraging new functionality in the clinical care environment with Everbridge. Everbridge is the mass notification application that The System uses for disaster and emergency management. The team has been working with a small group, on how to leverage an application module called Care Converge to help drive communication across different cardiac emergency teams such as a STEMI team or an ECMO team to support real time communication. So leveraging an existing software that we have to support care for our patients and streamline that level of communication across our care providers has been really well embraced.

Dr. Katz asked if there are any old business or new business to bring to the committee, hearing none, Dr. Katz adjourned meeting at 11:55 am

Enterprise Information Technology Update September 12, 2022 Committee Update

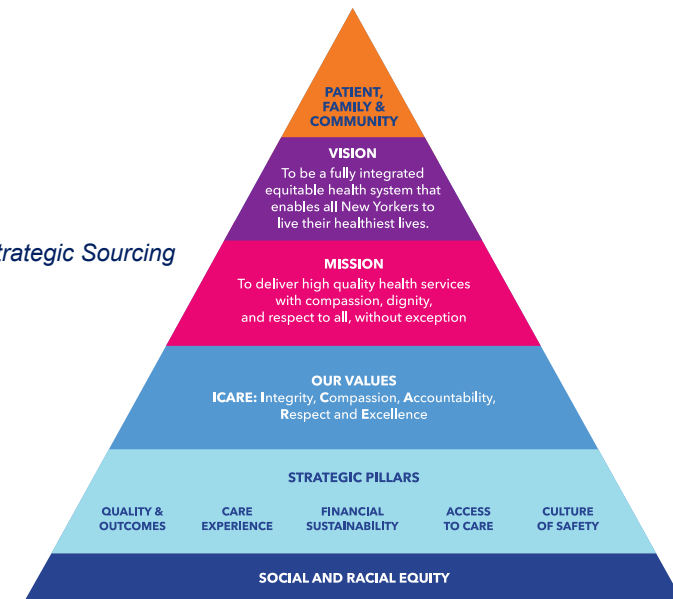
Kim Keziah Mendez, Senior Vice President- Corporate Chief Information Officer

EITS Update Agenda

- Introductions
- EITS Targeted June 2022 Updates
 - 2022 EITS Goals
 - Data Center Migration, Enhanced Processes & Future Technologies
 - Clinical Informatics/ Applications
 - Care Experience: Palm Vein Scanning, MyChart, and Epic Gold Star achievement
 - Epic Wisdom
 - Epic Willow
 - Staff Acknowledgements
- Q & A

NYC H + H Information Technology 2022 Goals

- **Data Management (Quality & Outcomes)**
 - Data and Analytics (DnA) ongoing developments: website, Platform , Enterprise Data Warehouse, Archiving, etc.
 - UMPI
 - Data Conversion best practice guidelines
- **Infrastructure Enhancement (Financial Sustainability/ Quality & Outcomes)**
 - Data Center migration
 - Epic Hyperdrive transition planning
 - Telecommunication – improve experience & device tracking
 - CMDB Sustainable Structure with auditing & Qtrly ecosystem updates
- **Accelerated Digital Transformation (Quality & Outcomes/ Access to Care)**
 - Telehealth Optimization
 - Remote Radiology Program in partnership with Quality & M & PA
 - Biomedical device asset tracking, security risk assessment and system standardization with *Strategic Sourcing*
- **H2O Effective Use (Care Experience/ Quality & Outcomes / Social & Racial Equity)**
 - MyChart Optimization
 - Leveraging Epic to support social & racial equity in care
 - Expansion & enhancement of Epic Modules
 - Application Learning Team Optimization
 - Downtime & Business Continuity Access (BCA) enhancement
- **CQI (Quality & Outcomes)**
 - Security & Risk Assessment / Mitigation best practices
 - Portfolio Management & Application Rationalization
 - Enterprise Resource Planning (ERP) Governance & Prioritization Structure
 - Establish Service Management Office (SMO)

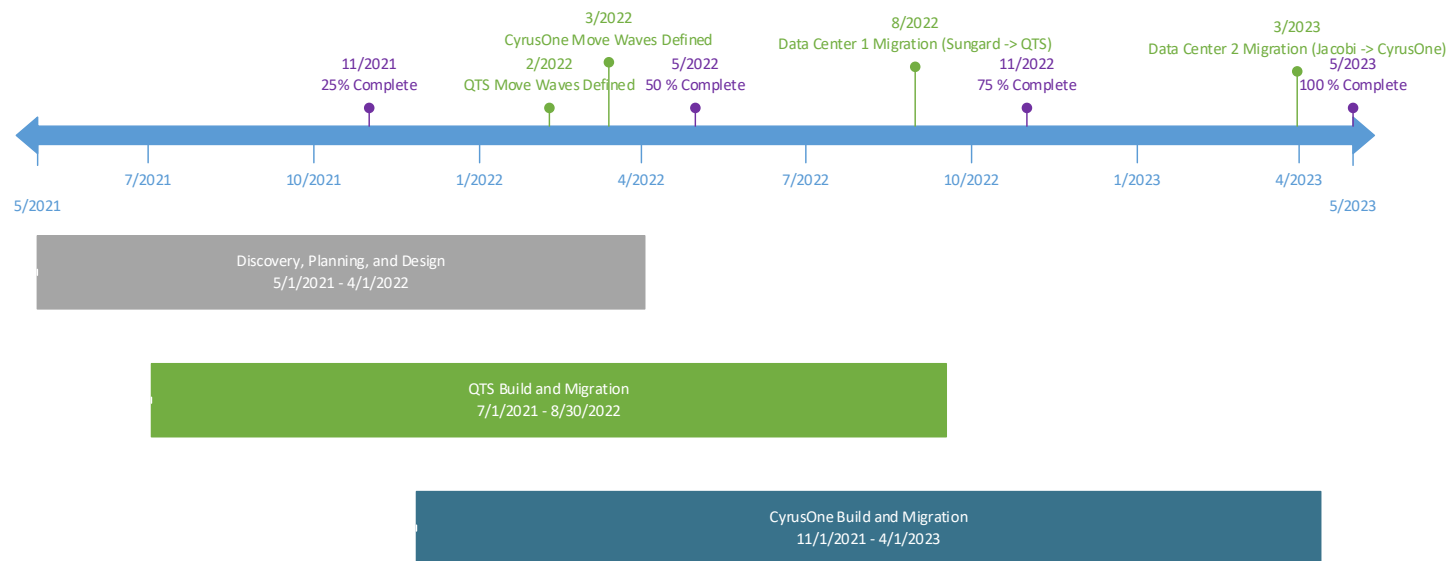


Data Center Migration August 2022

(Financial Sustainability/Quality & Outcomes)

- Enterprise Data Center Migration : Project Timeline 5/2021-5/2023
- As of August 31,2022, overall project progress remains on target at 63% completion.
- Enterprise Data Center Migration remains on target. Key accomplishments include:
 - Completed all 13 of 13 move waves August 9
 - Epic running from QTS starting July 13
 - Successful failover from Jacobi to QTS validating the system redundancy and replication scenarios
 - Internet Redundancy and Capacity – August 4
 - New data center now has two separate internet circuits from two different providers to provide additional capacity and redundancy given increased reliance of internet for support of various services including remote access, patient communications and patient portal
 - Wide Area Network Wave 1 migration completed August 29
 - Repointed 1 of 2 connection points from Sungard to QTS, now all locations accessing data center directly.
 - Final leg to be migrated at the end of September – disabling all connectivity into Sungard
 - Completed office area where onsite staff and other EITS resources can utilize while not working with the equipment directly.

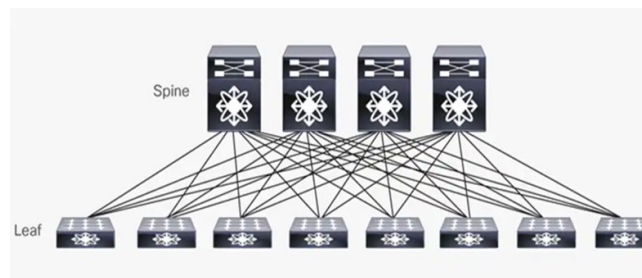
Data Center Migration Update



Enhancing Processes

Enhancing Processes & Best Practices:

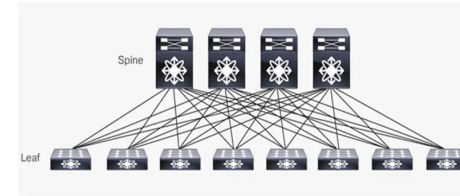
- Leverage Cisco vendor resources as a component of change management review and Business Critical Services processes for evaluating, training, implementing and maintaining equipment.
- Augment failover capabilities for data centers and local facility MDF capabilities.
- Review critical infrastructure to re-evaluate configuration management practices.
- Deploy future technology / leverage new data centers.



Future Technology

New Data Centers / New Technology:

- **ACI Configuration** – Application Centric Infrastructure (ACI) was built for the purposes of datacenter network automation. Out of the box, this product is designed to quickly scale giving administrators the ability to take “intent” and resolve against the entire fabric (Ex. via the Cisco Application Policy Infrastructure Controller). In addition, the core architecture concepts around spine and leaf set up allows for greater fail over and redundancy via cross connects between all the switches. **Currently in Deploy/ Use**
- **Nexus Dashboard** – Tools such as Nexus Dashboard (and its accompanying applications) allow for greater degrees of central management across multiple ACI locations. Example- Nexus Orchestrator allows for the management of multiple ACI sites from one application. This application also allows an administrator to build connectivity between various sites (via data center interconnect technology). **Currently in Deploy/Use**
- **DNA-Center** – This network controller will (among other things) allow for a greater degree of automation and less manual intervention as we stand up new Enterprise Network equipment and push updates to existing equipment. Features such as “Golden Image Management”, “Plug and Play” etc. speeds up desired updates and changes to your Cisco Enterprise Network equipment. **Currently in Use**
- **SD-Access** – This Framework extends virtualization to the access layer of the network. SD Access is intended to provide greater levels of speed, accessibility, automation, and scalability when administering your Network. **Currently in Deploy/ Use**



Clinical Informatics & Applications Update

(Care Experience/ Quality & Outcomes / Social & Racial Equity)

- Care Experience:
 - Palm Vein Scanning Update
 - MyChart Activation
- NYC H + H Epic Gold Start Achievement
- Epic Wisdom (Dental) module implementation
- Epic Willow (Ambulatory Retail Pharmacy) module implementation

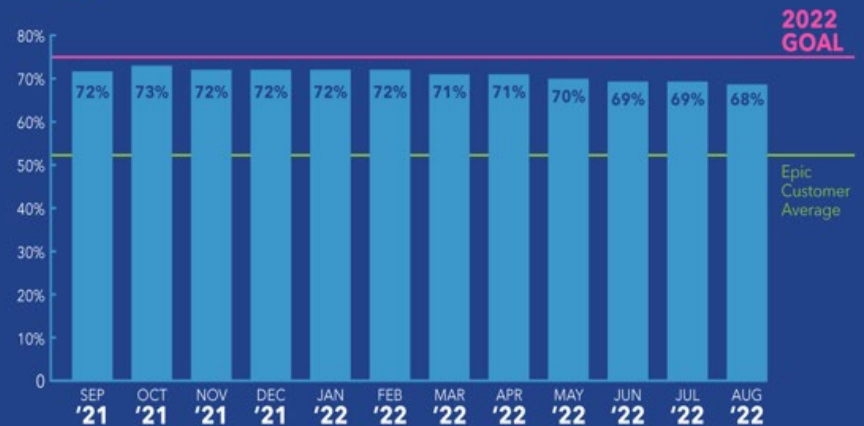
Care Experience: My Chart Patient Portal Activation

Average activation rate of Safety Net Systems is 46%, all Epic customers is 53%.

Primary Care 9/1/21 thru 8/31/22 (*excluding special pathogens encounters)	% Active in PC
Bellevue (25,212 / 34,877)	72%
Belvis DTC (7,835 / 9,893)	79%
Coney Island (16,735 / 26,446)	63%
Cumberland DTC (5,794 / 8,793)	66%
East New York DTC (7,042 / 10,385)	68%
Elmhurst (33,443 / 48,837)	70%
Gouverneur (16,407 / 23,493)	75%
Harlem (15,961 / 23,280)	69%
Jacobi/NCB (44,121 / 63,133)	70%
Kings (31,569 / 46,876)	67%
Lincoln (31,139 / 34,409)	90%
Metropolitan (21,848 / 28,063)	78%
Morrisania DTC (11,394 / 15,321)	74%
Queens (33,265 / 42,709)	78%
Sydenham Health Center (4,661 / 6,947)	67%
Woodhull (22,675 / 33,860)	67%

ENY.....88%
 Cumberland..... 83%
 Belvis.....80%
 Coney.....78%
 Gouverneur.....78%
 Morrisania.....77%
 Metropolitan.....77%
 Sydenham.....72%
 Bellevue.....70%
 Kings.....68%
 Queens.....64%
 Lincoln.....63%
 Elmhurst.....61%
 Woodhull.....60%
 Jacobi/NCB.....58%
 Harlem.....58%

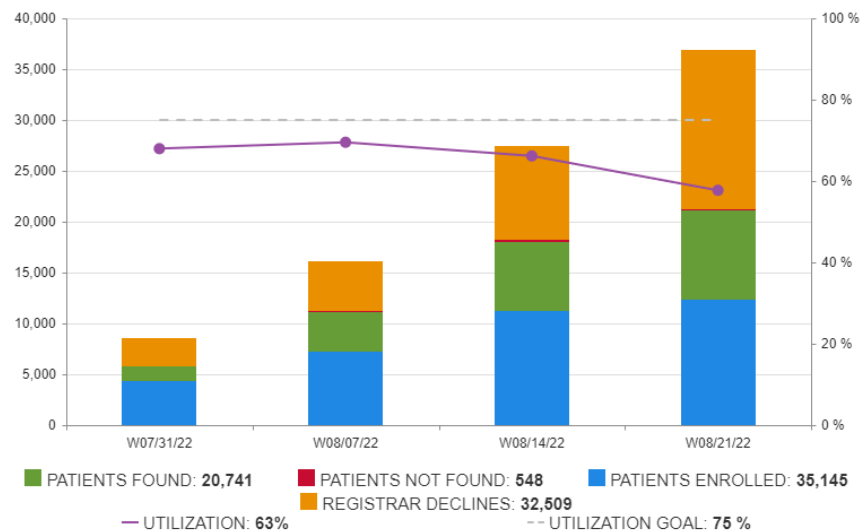
MyChart ENTERPRISE ACTIVATION RATES



Palm Vein Scanning

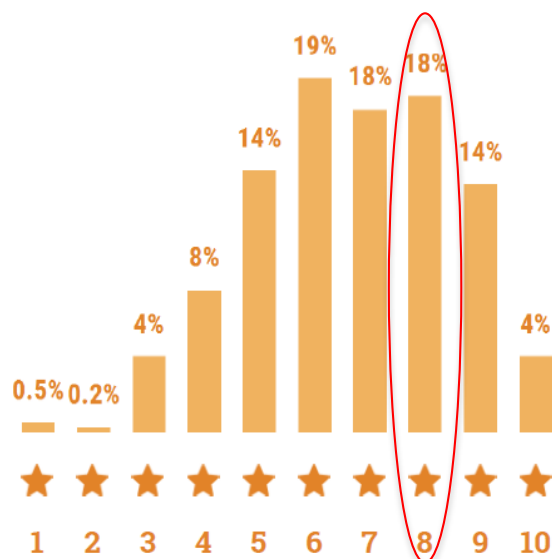
Weekly Trends ▾

All interactions ▾



Gold Stars

Peer Group Distribution



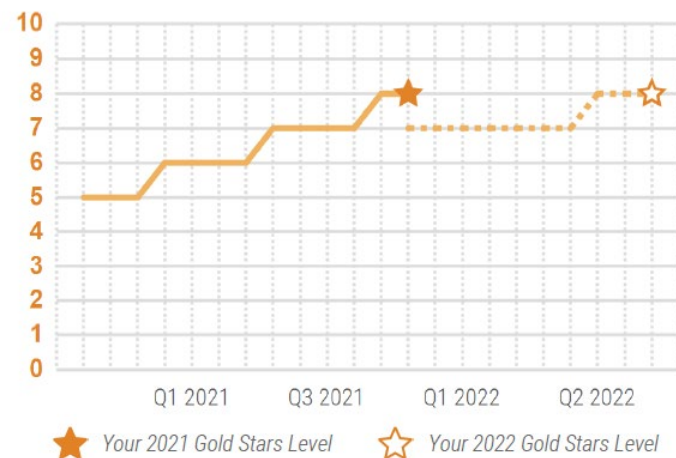
Stargazing *(Am I taking advantage of all Epic has to offer?)*

Current Gold Stars Level



Your Last Official Review was in July 2022. You achieved level 8.

Your Gold Stars Level Over Time



Epic Wisdom Implementation

July-August 2022

Site	Completed Visits
Bellevue	3300
Lincoln	4129
Metropolitan	1697
North Central Bronx	1508
Harlem	3526
Jacobi	2763
Morrisania	1131
Roosevelt	6
Tremont	1

Epic Willow : Key Performance Indicators

Overall Pharmacy Metrics



	May	Jun	Jul	MTD
Average Patient Waiting Time	37m 17s	31m 02s	26m 48s	25m 59s
Total First Fills	12,754	17,014	15,550	20,128
Total Refills	3,381	5,167	5,394	7,536
Percent First Fill	79.05 %	76.71 %	74.25 %	72.76 %
Percent Refill	20.95 %	23.29 %	25.75 %	27.24 %
Refills Requested by IVR	144	229	185	205
Refills Requested by Web	137	359	489	661

Acknowledgements

- Applications Learning Team
- EITS Project Management Office (PMO)
- Farewell to Sean Koenig, CAO

Applications Learning

20,800 end-users trained in 3,129 classes!

January - August 2022 Sustainable / New Hire Training



14,140 end-users trained:
3,136 Classes

January - March 2022
COVID-19 Response
Cross- Application: 980
Ambulatory Testing & Tracing: 62
Hotel: 123
Vaccine Administration: 159



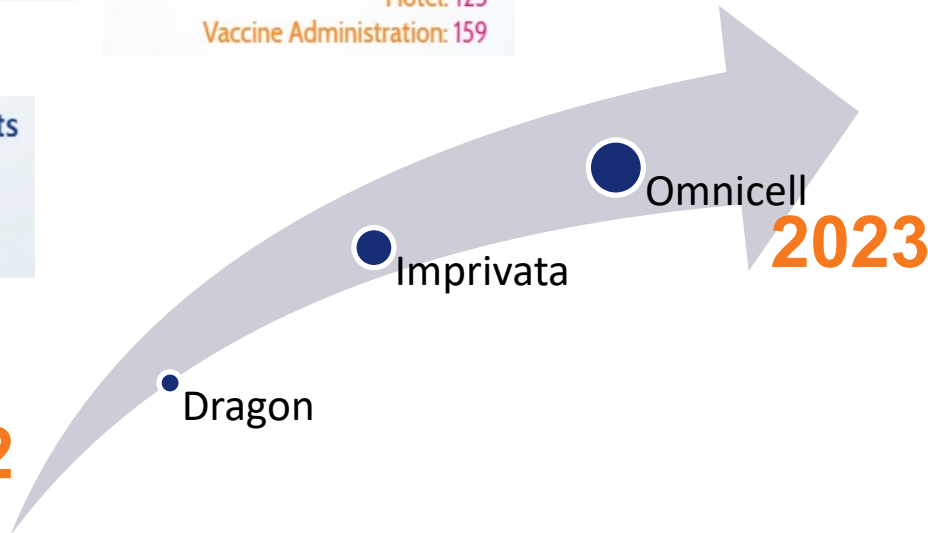
Upgrade 2022
Registration Navigator: 2,385

New Epic Applications
Wisdom 672 end-users trained
Willow Ambulatory: 69 end-userstrained

Thrive (Optimization) Efforts

TJC
Revenue Cycle HB Workqueue
Rover Rediscovery Fairs
Preference Card Workshops

2022



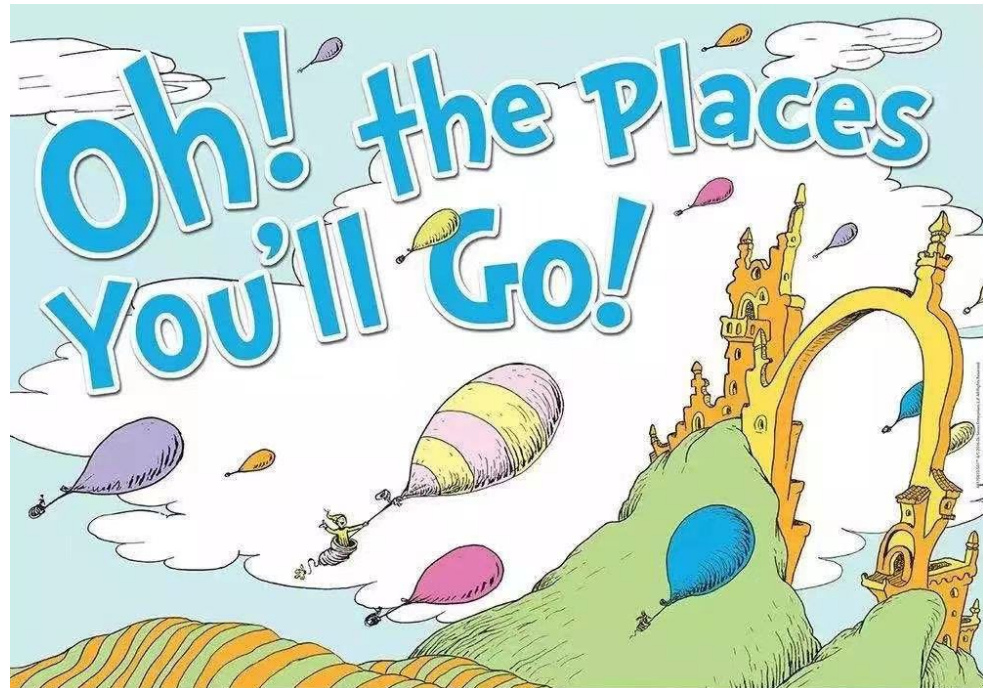
We're not just **Epic!**

THE AMAZING PMO TEAM

[Amazing Employees' Spotlight page!](#)



A Fond Farewell to Sean Koenig...



Thank You!

Appendix: Wisdom Usability

