AGENDA

INFORMATION TECHNOLOGY COMMITTEE

Meeting Date: September 13, 2018
Time: 10:00 AM
Location: 125 Worth Street, Room 532

BOARD OF DIRECTORS

CALL TO ORDER

ADOPTION OF MINUTES

July 19, 2018

CHIEF INFORMATION OFFICER REPORT

MR. LYNCH

ACTION ITEM ONE – CERNER LABS/NORTHWELL HEALTH

MR. LYNCH

Resolution
Authorizing the New York City Health and Hospitals Corporation (the “NYC Health + Hospitals”) to execute an amendment to the Participation Agreement (the “Participation Agreement”) with Northwell Health, Inc. (“Northwell”) to support an amendment to the agreement (the “Cerner Agreement”) between Northwell and Cerner Corporation (“Cerner”) by which Cerner will provide implementation and support services to complete the installation and roll-out of the Cerner laboratory information system (the “LIS”) across all of the NYC Health + Hospitals system with the resulting amendment to the Cerner Agreement increasing the total budgeted cost by $12,955,085 bringing the cost of such implementation and roll-out to a not to exceed total, inclusive of all expenses, of $34,379,677 over the period required for such implementation and roll-out currently estimated to be approximately June, 2020.

ACTION ITEM TWO

MR. LYNCH

Resolution
Authorizing the New York City Health and Hospitals Corporation (the “NYC Health + Hospitals”) to execute an amendment to extend its contract with Harris Computer Corporation (“Harris”) to continue operation, maintenance and support of NYC Health + Hospitals’ legacy electronic medical record system, Quadramed, for a term of three-years with four (4) one-year renewals in an amount not to exceed $61,316,936.00.

NEW YORK CITY HEALTH + HOSPITALS
ACTION ITEM THREE

Resolution
Authorizing New York City Health and Hospitals Corporation (the “System”) to execute an agreement with Fusion, a division of Fusion Capital Management, to procure a Correctional Health specific electronic medical record for the System’s Correctional Health Services division with primary care, pharmacy, specialty services, mental health and drug treatment in 11 NYC jails, with an initial term of three years with two one-year options to renew solely exercisable by the System and with total amount over the combined five-year term not to exceed $12,999,354 to pay Fusion.

OLD BUSINESS

NEW BUSINESS

ADJOURNMENT
MINUTES

Meeting Date: July 19, 2018

INFORMATION TECHNOLOGY COMMITTEE

ATTENDEES

COMMITTEE MEMBERS
Emily Youssouf, Chair
Josephine Bolus, RN
Gordon Campbell
Mitchell Katz, MD, President and Chief Executive Officer

NYC HEALTH + HOSPITALS CENTRAL OFFICE STAFF:
Paul Albertson, Vice President, Supply Chain and Materials Management
Jennifer Bender, Director, Marketing and Communications
Jeremy Berman, Deputy Counsel, General Counsel
Eunice Casey, Director of Planning, Population Health HIV Services
John Doyle, Associate Director, Communications & Marketing
Suzanne Fathi, Director, Information Technology
Kenra Ford, Senior Assistant Vice President, Office of Medical & Professional Affairs
Janet Karageozian, Assistant Vice President, Business Applications
Barbara Lederman, Assistant Vice President, Information Technology
Jeffrey Lutz, Assistant Vice President, Information Technology
Kim Mendez, Senior Vice President, Chief Nursing Executive
Barry Schechter, Assistant Director, Information Technology
Brenda Schultz, Senior Assistant Vice President, Financial Planning
David Starr, GO Program, EMR Build and Implementation
Christopher Telano, Senior Assistant Vice President, Office of Internal Audits

OTHERS PRESENT:
Tim Cosgrave, Cerner
Moira Dolan, Senior Assistant Director, DC 37
Scott French, Chief of Staff, Department of Social Services
Jessica Gretzol, Office of Management & Budget
Alison Lin, Intern, DC 37
Emily Youssouf called the meeting to order at 11:15 AM. The minutes of the April 12, 2018 meeting were adopted.

CHIEF INFORMATION OFFICER REPORT

David Starr thanked the Committee for allowing him to be there. He said Kevin Lynch could not be at the meeting due to a family reunion. He and others would give the CIO Report on his behalf.

EMR GO Program Update

Mr. Starr first spoke to the slides with images of NYC Health + Hospitals’ Acute Facilities, Post-Acute Care, Correctional Health Services, and Gotham Health Facilities. He showed Current Electronic Medical Record and Revenue Cycle Landscape and EMR Future State. He then spoke to Clinical IT Systems, which is a systems map.

Emily Yousseff asked if this means that many sub-applications will continue to exist but not be in sync with Epic.

Mr. Starr said this is correct.

Mr. Starr pointed to the slide with a graph called GO Deployment Schedule. He said this is a priority and we have set up a structure to help us prioritize projects. Epic is at the top of our list. Our next rollout will be in October 2018 in 92 days at Woodhull and Cumberland. They will be the first facilities to go live with both Epic Clinical and Financial simultaneously. At the same time, our facilities that already have Epic Clinical will get the Financial side as well. These include Coney Island, Queens, and Elmhurst. We are in the middle of testing and preparing to train our Super Users. In September, we will train our end-users.

Ms. Youssouf said the Committee would like to get detailed updates after go-live. We find sometimes we need to alter the project after implementation.

Mr. Starr said his group would provide updates post-going live and as we continue the rollout.

Mr. Starr said we are continuing with the next wave which will be at Bellevue, Harlem, and Gotham facilities Gouverneur and Sydenham. They will go live with both Clinical and Revenue Cycle Epic applications.

Dr. Mitchell Katz said he met GO people yesterday as I was in practice. It is happening on the ground.

Ms. Youssouf said she would like to see the slides up on the screen because we get questions from the Board. These charts are very helpful to give the scope.

Mr. Starr said we will do that.

Mr. Starr said we are having a contest across the organization to name this system. Currently, the implementation process is called GO and most people call it Epic. So the contest is open to all employees to name it. We have over 1700 submissions from 700+ individuals.

Dr. Katz said several Board members gave their ideas and it will be judged by the employees. We did this in Los Angeles and people liked it. It is how we came up with the name Orchid.

Mr. Starr said we are tracking well both with timing and with the budget. We are looking for full implementation by the end of 2019.

Ms. Youssouf said it would be good if you could show that in addition to saying it.

Mr. Starr agreed.
Josephine Bolus said the chart shows this going to 2020.

Mr. Starr said the hospitals and clinics will go live by 2019. We are working on post-acute care for 2020.

Mr. Lynch said the approved Enterprise Epic implementation timeline continues to have all eleven of NYC Health + Hospitals’ acute care facilities going live prior to April 2020. Our team continues to find a safe and efficient way to implement the Epic rollout at NYC Health + Hospitals acute care facilities in calendar year 2019. Once confirmed, we will seek formal approval to adopt the new compressed implementation timeline.

**Enterprise Radiology Integration Update:**

Dr. Alfred Garofalo said this is often referred to as the McKesson project. It replaces two different systems with this single one. It is live at Coney Island, Woodhull, and this week, at Metropolitan. We have been learning from our first implementation at Coney Island. Our Woodhull go-live was better and Metropolitan was even smoother than that. We are moving forward at Kings County, then Lincoln, Harlem, Bellevue, North Central Bronx, Jacobi, Queens and Elmhurst. We are scheduled for full implementation across the organization by fall and winter of 2018/19. This is a huge lift. Epic is interfacing with McKesson currently. QuadraMed is interfacing with Epic and the other two legacy systems.

He said Epic is an integrated electronic medical record (EMR). He said previously, you could not see images across the organization. With McKesson, you can do that. That is a big plus for us, even as we are still on the legacy systems.

Ms. Youssouf said this is huge and the timing is very impressive.

Dr. Garofalo said there have been accolades from the radiologists. At first, they were apprehensive since they had to learn a new platform. But now, they are extremely happy.

Dr. Katz said he spoke with a radiologist and she was very happy with it.

Dr. Garofalo said the peer review platform allows them to have more information at their fingertips.

Ms. Bolus asked if Epic is working on increasing what they can do because QuadraMed had two failures they never told us about. Is Epic going to stay with us and be valuable?

Dr. Katz said Epic is doing super well with their ratings. They are better than the choice we made in LA. We are talking in terms of national ratings. They are number one among physician groups and they are growing. They are the most flexible platform. In contrast, there are many problems with Eclinicalworks. We use this in our prisons and it is used by many private practices. There have been a number of settlements recently. They are not flexible about fixing things. It has not been pleasant working with them. Epic is not going anywhere and they are leaders of the pack.

Ms. Youssouf said we were told that the number of contract employees would be reduced as items were implemented. Could we get an update for the next meeting?

Dr. Katz said we will do that for the next meeting.

**Enterprise Resource Planning (Project Evolve) Update:**

Janet Karageozian said she was happy to report that Waves 1-5 of PeopleSoft Finance and Supply Chain are now live across NYC Health + Hospitals. We worked with Finance and Supply Chain to do this.

She said Cost Accounting is on track for go-live in September 2018. This will conclude Phase 1 of Finance and Supply Chain deployment. We are now in Phase 2 which includes PeopleSoft Payroll/Time & Labor/Absence Management/Electronic Time Capture. Payroll go-Live is on track for January 2019 and Time and Labor/Absence Management is on track for May 2019.
Janet said Electronic Time Capture (which will replace our paper timesheets) is on track for June 2019.

Ms. Youssouf asked if that is in conjunction with PeopleSoft.

Ms. Karageozian said our devices will collect time and interface into our application. She said our project are on time and on budget.

Ms. Youssouf said she loves to hear that.

Ms. Bolus asked if this new system uses fingerprints.

Ms. Karageozian said it uses an image of your fingerprint. There is another means by which employees can access the system using an ID number.

**ACTION ITEM 1:**

**RESOLUTION FOR NETWORK REFRESH CABLING**

Jeff Lutz read the resolution:

Authorizing the New York City Health and Hospitals Corporation (the “System”) to enter into a contract with G-Systems for cabling services as a component of the Network and Unified Communication Infrastructure Upgrade project at NYC Health + Hospitals/Bellevue, NYC Health + Hospitals/Kings County, NYC Health + Hospitals/Woodhull and NYC Health + Hospitals/Harlem (the “Four Hospitals”) in the amount of $24.2 million, of which $21.8M is funded through the City’s Capital Budget and $2.4M is funded through the System’s operating budget which sum includes a 10% contingency.

Mr. Lutz then spoke to the presentation Enterprise Information Technology Services Network Refresh Cabling; Application to Award Contract.

Under Network Refresh Project, Mr. Lutz said NYC Health + Hospitals is undertaking a Network Refresh project to increase bandwidth for faster application response times, accommodate application growth, support interoperability, maintain stability and migrate to a voice and data communication system (VoIP). He said this is to better service both for employee use as well as patient use. The Network Refresh project is funded via the City’s Capital Budget in the amount of $160 million for the procurement of hardware, wireless survey services, professional services and cabling services necessary to upgrade the network infrastructure systems across all NYC Health + Hospitals facilities.

He continued saying in April 2018, the Board of Directors authorized the expenditure of $32 million (of the $160 million) for services necessary to implement the Network Refresh project, and required that we return to the Board when any of the contracts exceeds the $5 million Board review threshold. In accordance with the resolution, we are seeking approval of a contract with G-Systems for cabling services in NYC Health + Hospitals/Bellevue, Kings County, Woodhull and Harlem in the amount not to exceed $24.2 million dollars; of which $21.8 million is funded through the City Capital budget and $2.4 million is funded through the NYC Health + Hospitals’ operating budget.

Mr. Lutz said these facilities were chosen because they were next in the Epic rollout.

Mr. Lutz said there was an exception to policy requested for $4,713,570 for cabling at East New York, Cumberland, the Cumberland clinics and Phase I of Bellevue with G-Systems. This was pursuant to an Exception to Policy authorized by Dr. Katz on June 26, 2018, as there was not sufficient time to complete all required procurement steps and meet the revised Epic roll-out schedule.

Ms. Youssouf asked if that is the entire $32 million.

Mr. Lutz said no. If you take the $21.8 million and add it to the $4.7 million, that makes it $26.5 million (of the $32 million).
Mr. Lutz continued to The Request, which is to Award Contract to G-Systems to provide cabling services. He said the vendor will furnish all labor, equipment and materials necessary for network cabling at NYC Health + Hospitals/Bellevue, Kings County, Woodhull, and Harlem. There will be agreed upon milestones. The contract term is 2 years and the total contract price not to exceed $24.2 million. Payment will be made upon completion of agreed upon milestones and approval of the work at each facility. He added that G-Systems’ Vendex has been approved EEO approved and their certification is in the packet.

Mr. Lutz spoke to Vendor Experience & Services. Under Experience, he said G-Systems has been installing network cabling for the majority of NYC Health + Hospital facilities in excess of 10 years including most recently for Jacobi, Queens, Elmhurst and Coney Island, including sensitive patient areas. They are very familiar with our organization which will make this process minimally invasive.

Mr. Lutz addressed Services. He stated G-Systems will run and test network cables from data closets on the floor (including patient areas) to cover the following: Hang, install and test each wireless access point which connects back to a data closet on the floor, there are numerous access points per floor – the count depends on the results of the wireless survey. Each end-user device (computer, printer, bio-med, credit card machine, etc.) requires network cabling back to the data closet on the floor. Connections from the data closet to the facility main data center, which is the central hub for all connectivity throughout the facility and back to the Corporate data centers. He said based on feedback from the post wireless survey, access points will need to be relocated in order to cover any identified gaps or provide better and more seamless coverage of an area.

Mr. Lutz then went on to Procurement Process. He spoke about the Solicitation. He said an application to issue a Request for Proposals (DCN #2311) was presented and approved before the May 29, 2018 Contract Review Committee. He gave the RFP Timeline: June 4, 2018 (RFP Issued & Posted to the City Record); June 11, 2018 (Pre-proposers conference); June 11, 2018 (Site Visits – Bellevue & Harlem); June 12, 2018 (Site Visits – Woodhull & Kings); and June 20, 2018 (Proposals Due – 2 proposals received).

Ms. Youssouf asked how many were there originally.

Mr. Lutz said he believed there were five but he would get that information for sure at a later time.

Mr. Lutz addressed the Evaluation saying that on June 27, 2018, the Proposal Review & Scoring was done based on the RFP Evaluation criteria, including Cost, Experience and Technical Proposal.

In speaking to the Selection, Mr. Lutz said G-Systems was selected as its proposal offered NYC Health + Hospitals the best combination of technical ability, approach and price (there was an almost $10 million gap between the two proposals) based on the evaluation factors set forth in the solicitation.

Ms. Bolus asked about their reputation.

Mr. Lutz said it is great. They have been doing the majority of the work out there today. They come in and resolve wiring issues very quickly. They are very professional and know the people around the facilities.

Ms. Bolus said there will be new building in almost all the hospitals.

Mr. Lutz said we work very closely with OFD so we can help in evaluation. We make sure networking needs are taken into account and meet Epic requirements.

Ms. Bolus said for example East New York has work being done in 2019 and you are going in there before that.

Mr. Lutz said in that site, we will align with them to make sure nothing is missed.

Ms. Youssouf said for Kings County, which is a very large facility, how long will all this take.
Mr. Lutz said three to four months. It might be shorter based on accessing patient areas. He said he would keep the Committee posted.

Ms. Bolus asked how much trouble this will cause for doctors, nurses, and labs during this work.

Mr. Lutz said we go in during off-hours for non-24/7 departments. For 24/7, we do not interrupt existing computers. We drop a line in a similar area and find the quietest times to work (with their input). It minimizes interruptions. We run the new wires and move computers and then remove the old ones to minimize issues.

Ms. Bolus if there will be issues with old data being placed on the new computer.

Mr. Lutz said they will get everything they need.

Kenra Ford said this will help with any blind spots.

Mr. Starr said prior to go-live, we test every computer with every printer and scanner for every user and every nurse and doctor and admission clerk for Epic. We test and sign off on every single device.

Ms. Bolus asked if we discard old machines.

Mr. Lutz said if the existing machine meets the Epic requirements, we keep it.

Mr. Starr said we test them too.

Mr. Lutz said the vendor is required to test every line they drop.

Ms. Bolus asked what happened to money to buy new computers.

Ms. Youssouf said we did set aside that money.

Dr. Katz said we should look into this and get back.

Ms. Youssouf said there was a proposal to reduce number of printers since they were too many and they were all over. Can you get back to us on that?

Mr. Lutz said there is a lot going on with that and we will get you an update.

The resolution was adopted.

There being no further business, the meeting was adjourned at 11:50 AM.
Thank you and good morning. I would like to provide the committee with the following brief updates:

Update on Post Acute Care and Correctional Health: Neither Post Acute Care or Correctional Health Services can utilize Epic as an Electronic Medical Record solution until mid/late 2020 because of the work effort to deploy across our current remaining Acute Care and Gotham/Ambulatory landscape.

Post Acute Care – We evaluated our options which included staying on paper for the next two years and implement Epic in mid/late calendar 2020, or implement a niche product in a timely fashion in order to leverage better reimbursement and provide better patient care. We can then evaluate Epic in 2020. The increased revenue which we will receive by going to this package through CY 2020 will be greater than the cost of acquiring the package.

Correctional Health Services – Our current eClinicalWorks product does not adequately meet our clinical needs and is being replaced in early 2019 with a new product that has no correctional health retrofits. This leaves us in the need of an immediate solution. We can implement a niche product in a timely fashion to continue patient care and evaluate Epic in 2020. The capital funding for this project is covered in the City’s capital plan.

Both Post Acute Care and Correctional Health Services niche systems will need integration options which will be evaluated with some of the industry standard tools available.

**Governance:**
Our Health Information Technology Prioritization Steering Committee continues the work effort of prioritizing the highest strategic IT projects (10) listed below:
CIO Report to the IT Committee
September 13, 2018

- **Epic Electronic Medical Record (EMR) Initiative** – Deployment of Epic system across all patient care locations.
- **Enterprise Radiology Integration Initiative** – Enterprise Picture Archive Communication System (PACS) for digital imaging
- **Enterprise Resource Planning (Project Evolve)** – Human Resources, Payroll, Supply Chain, Finance, Accounts Payable, Cost Accounting
- **Clairvia** – Nurse Scheduling System
- **2018 Meaningful Use Demonstration Initiative**
- **Enterprise Biomed Initiative**
- **Enterprise Capital Restructuring Finance Program (CRFP)**
- **Enterprise Provation Medical Initiative**
- **Pharmacy Enhancements Initiative**
- **Unified Communication** – Infrastructure improvements/upgrades

Links to the Health Information Technology Prioritization Committee Charter and NYC Health + Hospitals IT Project Portfolio can be found on the Enterprise Information Technology Services intranet site, located on the Insider.

**Epic Electronic Medical Record (EMR) Initiative:**
- The GO team continues the work effort to extend our enterprise electronic medical record system across all NYC Health + Hospitals Acute Care, Gotham, and Ambulatory patient care locations. It is scheduled to be completed by the end of calendar year 2019.
- The next go-live is scheduled for October 20, 2018 (35 days). It includes Clinical and Revenue Cycle Epic applications at Woodhull/Cumberland and the retrofit of Revenue Cycle at Queens, Elmhurst, and Coney Island.
- Post-Acute and Correctional Health update.

**Enterprise Radiology Integration Initiative:**
- Live at Coney Island, Woodhull, Kings County, and Metropolitan.
On track for go lives at the remaining sites including Lincoln, Harlem, Bellevue, North Central Bronx, Jacobi, Queens and Elmhurst which scheduled for fall through winter of 2018/19.

**Enterprise Resource Planning (Project Evolve) Update:**

- Completed Phase 1 – Waves 1-5 which included PeopleSoft’s Finance (Accounts Payable, Asset Management, Budget, General Ledger) and Supply Chain (eProcurement, Inventory) modules across all NYC Health + Hospitals locations.
- Cost Accounting has moved from its planned September go live to a date yet to be determined. The plan is being reworked and a new date is being determined
- Phase 2 – PeopleSoft Payroll/Time & Labor/Absence Management/Electronic Time Capture:
  - Payroll Go-Live is on track for January 2019. We have started our fourth round of over 10 rounds of testing that will continue throughout this calendar year.
  - Time and Labor/Absence Management modules are on track for May 2019. Time and Labor is the module that applies complex pay rules to calculate an employee’s time. Absence Management is the module that tracks an employee’s accrued/taken time (for example, vacation and sick). Design and build efforts are in progress for both modules with testing starting the second week of September.
  - Electronic Time Capture is on track to begin rolling out in June 2019. Electronic Time Capture will replace the current paper timesheets with an electronic device that will allow employees to record their time.
- Clairvia Clinical Scheduling in progress and expected to go live for Wave 1 in Spring 2019. Design and build efforts have begun for our Wave 1 facilities, which includes Coney Island, Kings, County, SeaView, McKinney and East New York.
  - The rollout of Waves 1B – 1F will continue through the Fall 2019.

Per the request from the Chair of the IT Committee, we will provide an update on the overall Enterprise Information Technology System’s budget. Once it is complete, we will report back to this Committee.

This completes my report today. Thank you.
STAFF GETS FIRST-HAND MEDICATION DEMONSTRATION IN EPIC SYSTEM

The GO team did a Webex on Medication Administration from NYC Health + Hospitals/Metropolitan. Click here to find out the demonstration that was viewed by staff around the enterprise. FULL STORY >

CENTRAL OFFICE EMPLOYEES HELP MPS CONSOLIDATE PRINTERS

Managed Print Services (MPS) has introduced Service Now software in Central Office locations in order to save money and make printing more efficient. Click here to find out how this system will benefit employees, clinicians, and patients. FULL STORY >

PICTURE OF THE MONTH

Vincent Killian of the GO Team, addresses a large group of SuperUsers at NYC Health + Hospitals/Woodhull on August 14. He was taking part in training this important group in anticipation of Epic electronic health record system go-lives at Woodhull.

NEWS Friday, August 31, 2018
NYC H+H
Acute Facilities + Post Acute Care + Correctional Health Services + Gotham Health Facilities
NYC H+H
2020 EMR Landscape

Post Acute Care EMR

Epic

Future state Integration

Correctional Health Care EMR

Future state Integration
# Epic EMR Implementation Timeline

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<th>Quadrant</th>
<th>2018</th>
<th>2019</th>
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- Enterprise Build, Validation and Testing
  - Woodhull
  - Gotham Health | Cumberland
  - Queens
  - Coney
  - Elmhurst
  - Bellevue
  - Gotham Health | Gouverneur
  - Harlem
  - Gotham Health | Sydenham
  - Metropolitan
  - Lincoln
  - Gotham Health | Belvis
  - Gotham Health | Morrisania
  - Jacobi
  - NCB
  - Kings County
  - Gotham Health | East NY

### Timeline:
- 10/20/2018: Enterprise Build, Validation and Testing
- 3/9/2019: Gotham Health | Gouverneur
- 7/2019: Gotham Health | Belvis
- 10/20/2019: Gotham Health | East NY
## GO Program Executive Budget Summary
(in Millions)

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<th>Accruals through FY18</th>
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Enterprise Radiology Integration Initiative Time Line

April, 2018
Coney Island (Agfa)

June
Woodhull (Agfa)

July
Metropolitan (Sectra)

August 27th
King’s County (Sectra)

September 24th
Lincoln (Sectra)

November 2nd
Harlem (Sectra)

November 30, 2018
Bellevue (Sectra)

January 11, 2019
Jacobi / NCB (Agfa)

February 22, 2019
Queens / Elmhurst (Agfa)

Agfa Imaging Sites
Sectra Imaging Sites

Enterprise McKesson PACS Imaging Sites
RESOLUTION

Authorizing the New York City Health and Hospitals Corporation (the “NYC Health + Hospitals”) to execute an amendment to the Participation Agreement (the “Participation Agreement”) with Northwell Health, Inc. (“Northwell”) to support an amendment to the agreement (the “Cerner Agreement”) between Northwell and Cerner Corporation (“Cerner”) by which Cerner will provide implementation and support services to complete the installation and roll-out of the Cerner laboratory information system (the “LIS”) across all of the NYC Health + Hospitals system with the resulting amendment to the Cerner Agreement increasing the total budgeted cost by $12,955,085 bringing the cost of such implementation and roll-out to a not to exceed total, inclusive of all expenses, of $34,379,677 over the period required for such implementation and roll-out currently estimated to be approximately June, 2020.

WHEREAS, pursuant to a resolution of the NYC Health + Hospitals’ Board of Directors adopted in March 2013, NYC Health + Hospitals signed a joint venture agreement with Northwell (the “JV Agreement”) to establish a joint venture for the operation of a joint laboratory; and

WHEREAS, the JV Agreement depended on various ancillary agreements to carry forward the joint venture purposes including the Participation Agreement which was signed simultaneously with the JV Agreement; and

WHEREAS, to fully participate with Northwell in the joint venture, NYC Health + Hospitals will need to order tests and get results using an NYC Health + Hospitals Cerner LIS which is interfaced with a Northwell Cerner LIS and the Participation Agreement permits NYC Health + Hospitals to participate with Northwell in the Cerner Agreement as if NYC Health + Hospitals’ hospitals were Northwell hospitals with the additional cost to Northwell being passed on to NYC Health + Hospitals; and

WHEREAS, the roll-out of the Cerner LIS must proceed in coordination with the Epic roll-out as the two systems must work together and the original contractual arrangement had required the Cerner roll-out to follow the original Epic schedule; and

WHEREAS, with the change in the Epic roll-out schedule necessitated by the addition of the Epic Revenue Cycle modules, the roll-out of the Cerner LIS has had to be rescheduled and its configuration modified to include interfaces with Epic Revenue Cycle causing some work previously performed by Cerner to be extensively revised; and

WHEREAS, the Cerner LIS is already rolled out at Elmhurst, Queens and Coney Island Hospitals; and

WHEREAS, EITS and the lab management have determined, based on the prior roll-outs of the LIS, to contract for additional support and training services from Cerner through Northwell which will be reflected in the proposed amendment and accounts for a portion of the additional cost; and

WHEREAS, the Senior Vice President of EITS and the Senior Vice President and Chief Medical Officer will jointly be responsible for the administration of this contract.
NOW, THEREFORE, BE IT

RESOLVED, the New York City Health and Hospitals Corporation (“NYC Health + Hospitals”) is hereby authorized to execute an amendment to the Participation Agreement with Northwell Health, Inc. (“Northwell”) to support an amendment to the agreement between Northwell and Cerner Corporation (“Cerner”) by which Cerner will provide implementation and support services to complete the installation and roll-out of the Cerner laboratory information system across all of the NYC Health + Hospitals system with the resulting amendment to the Cerner Agreement increasing the total budgeted cost by $12,955,085 bringing the cost of such implementation and roll-out to a not to exceed total, inclusive of all expenses, of $34,379,677 over the period required for such implementation and roll-out, currently estimated to be approximately June, 2020.
EXECUTIVE SUMMARY
AMENDMENT TO AGREEMENT WITH NORTHWELL HEALTH INC.
AS TO ITS AGREEMENT WITH CERNER CORPORATION

Lab Background: In 2015 NYC Health + Hospitals entered into a joint venture with Northwell for shared hospital laboratory services. Under the Joint Venture Agreement, the parties created a new 501(e) hospital cooperative corporation to operate a joint laboratory. Several ancillary agreements were signed or negotiated for later signature as necessary to carry forward the purposes of the Joint Venture. Among these agreements were: an agreement establishing the governance of the new corporation, an agreement whereby NYC Health + Hospitals could lease some or all of its lab employees to Northwell, an agreement whereby NYC Health + Hospitals could send its lab tests to the existing Northwell lab at favorable prices pending the construction of a new joint lab and the Participation Agreement providing for NYC Health + Hospitals’ hospitals to be treated as Northwell hospitals under Northwell’s agreement with Cerner so that NYC Health + Hospitals can order lab work and receive results on the Cerner LIS which Northwell uses.

LIS Benefits The implementation of an LIS is key to NYC Health + Hospitals’ laboratory initiative. An LIS will bring to laboratory operations the same kinds of benefits that will be obtained from NYC Health + Hospitals’ adoption of an EMR: it will promote standardization and best practices and will permit visibility across the entire system. Having an LIS will impact every aspect of laboratory operations from outpatient primary care to our emergency departments. Currently, NYC Health + Hospitals is using multiple interfaces to connect to Northwell’s Cerner system which impairs visibility and depresses our potential volume of tests that can be sent to Northwell.

Lab Status: Currently, NYC Health + Hospitals sends to Northwell approximately 1,347,514 lab specimens for testing which represents approximately 25% of NYC Health + Hospitals’ total annual test volume. These tests are charged by Northwell to NYC Health + Hospitals at the same rates as Northwell charges its own hospitals which is substantially less than NYC Health + Hospitals had previously been paying when it sent its tests out to Quest. As a result, NYC Health + Hospitals pays less per year on lab tests than it had prior to the joint venture. The only costs of the joint venture that offset these savings are the costs of installing the LIS, however, as indicated above, an LIS would have had to be implemented in any event. The joint venture is planning to open its new state-of-the-art facilities in Little Neck Queens on or about October 2018 and in Lake Success in February 2019. The Joint Venture has been successful to date in achieving incremental savings, with full savings anticipated with the complete roll-out of the Cerner LIS and the opening of the two new lab buildings in 2019, and the shift in remaining outpatient volumes those developments will permit. Savings to date include $6 million from the shift of reference tests from Quest to Northwell. NYC Health + Hospitals has also benefited from reduced pricing for laboratory equipment and blood products through joint procurement processes. Personnel savings (through attrition) are anticipated as test volumes shift. Overall, annual laboratory expenditures are down by approximately $10 million from the 2012 baseline.
LIS Background: The Cerner LIS has been already been implemented at Elmhurst, Queens and Coney Island Hospitals. The LIS roll-out has been delayed as has the Epic roll-out due to the determination to add the Epic Revenue Cycle module. With the addition of Epic Revenue Cycle, some implementation work already done by Cerner will have to be extensively modified.

Proposed Amendment: By suspending the original Epic and Cerner roll-out and redesigning the roll-out to include revenue cycle, costs have been added to the LIS part of the project. These costs are attributable, in part, to the need to rework some designs already prepared for implementation. Further costs are added to purchase additional implementation, training and support services based on NYC Health + Hospitals’ experience with the Cerner LIS implementation at Elmhurst, Queens and Coney Island Hospitals.

With the proposed amendments, the proposed Cerner implementation and technical support costs to build, install and roll-out the LIS that will be charged to Northwell and then billed by Northwell to NYC Health + Hospitals will total $34,379,677 inclusive of all expenses. This amount includes $12,955,085 additional costs.

New Agreement With Cerner to go Into Effect after go Live is Complete or Advanced: NYC Health + Hospitals will want to restructure the current three-party agreement among Cerner, Northwell and NYC Health + Hospitals to become a bi-lateral agreement between Cerner and NYC Health + Hospitals. This will create a simplified structure that will facilitate administration avoid the possibility of redundancies. It is best not to attempt such restructuring during the early stages of the Cerner/Epic rollout due to the complexity of re-assigning to Cerner the support services now being performed by Northwell staff that are intimately familiar with the operation. This restructuring will be a priority once the Cerner rollout is complete or perhaps once it is completed at several facilities.

Future Financial Cost of New Cerner Agreement: When it is possible to restructure the current three-party agreement, the resulting agreement will include support services now reflected in the Amended three-party agreement and it will also include costs that Northwell currently invoiced to NYC Health + Hospitals. Among these costs are the cost of the licenses to Cerner proprietary software used in the LIS and certain support and training services currently provided by Northwell.
Cerner Laboratory Information Systems
Amendment to the Participation Agreement with Northwell
September 13, 2018

Kenra Ford
Senior Assistant Vice President

Al Garofalo, DPM
Senior Assistant Vice President
Background

In 2015 NYC Health + Hospitals entered into an agreement for a joint venture with Northwell; per the agreement

- A. Health + Hospitals would send outpatient lab tests to the existing Northwell lab, pending construction of a new joint lab venture.
- B. The Joint Venture lab services will utilize Cerner LIS
- C. Health + Hospitals LIS agreement is currently between Health + Hospitals, Northwell and Cerner.

Benefit

- The benefit of a Lab Information System (LIS) is a standardized, enterprise-wide model, encompassing all enterprise lab services with seamless integration to the joint venture laboratory.
The Cerner LIS has been implemented at Elmhurst, Queens and Coney Island Hospitals; further build is necessary to align with the Epic Financials.

Based on prior experiences/"lessons learned" with the Cerner LIS implementation at Elmhurst, Queens and Coney Island Hospitals, additional services are needed for training and support services for the remaining facilities.

Some of the build/implementation work already preformed by Cerner for remaining sites requires updating/modification, to alignment with revised Epic timeline.
## Cost Breakdown

<table>
<thead>
<tr>
<th>Cost Categories</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Go Live Payments</strong></td>
<td></td>
</tr>
<tr>
<td>Fixed Fee Services (FFS) (additional support for retrofit and remaining go-lives)</td>
<td>$ 8,761,356</td>
</tr>
<tr>
<td>Fixed Fee Expanded Go-Live Support</td>
<td>$ 2,459,009</td>
</tr>
<tr>
<td>Learning Services (end-user training)</td>
<td>$ 985,504</td>
</tr>
<tr>
<td>Foreign Systems/Medical Device Interfaces FFS Estimated (lab equipment)</td>
<td>$ 749,216</td>
</tr>
<tr>
<td><strong>Total Incremental Go Live</strong></td>
<td>$ 12,955,085</td>
</tr>
</tbody>
</table>
Approval Request

- We are seeking approval to execute an amendment to the Participation Agreement (the “Participation Agreement”) with Northwell Health, Inc. (“Northwell”) by which:

  Cerner will provide implementation and support services to complete the installation and roll-out of the Cerner laboratory information system (the “LIS”) across all of the NYC Health + Hospitals system, for a total budgeted cost by $12,955,085, bringing the total cost not to exceed $34,379,677, through June, 2020.
RESOLUTION

Authorizing the New York City Health and Hospitals Corporation (the “NYC Health + Hospitals”) to execute an amendment to extend its contract with Harris Computer Corporation (“Harris”), successor in interest of Quadramed, to continue operation, maintenance and support of NYC Health + Hospitals’ legacy electronic medical record system, Quadramed, for a term of three-years with four (4) one-year renewals in an amount not to exceed $61,316,936.00

WHEREAS, New York City Health + Hospitals is undergoing a major upgrade to a new Epic electronic medical record (“EMR”) system which is expected to be completed by the end of 2019; and

WHEREAS, it is critical to continue to operate, maintain and support the legacy EMR, Quadramed, throughout the Epic deployment for facilities that have not transitioned to Epic and remain on the legacy EMR;

WHEREAS, it is in the best interest of NYC Health + Hospitals to renew the contract with Quadramed for a minimum of three years (with four one-year renewal options); to maintain its current legacy EMR operations and allow the ability to meet any changing guidelines or regulations by Federal, NYS State and the City requirements while facilities are still live on Quadramed; and

WHEREAS, as each NYC Health + Hospitals facility becomes live on the EPIC EMR, the Quadramed EMR will revert to a read-only model, which will allow continued access to patient records as a reference assuring as close to continuity of care, as possible; and

WHEREAS, access to over twenty years of patient data is critical as NYC Health + Hospitals migrates from its legacy system, Quadramed to Epic, this extension will assure that all caregivers will continue to have access to the patient data throughout the extended contract term;

WHEREAS, NYC Health + Hospitals has contracted with a succession of parties that have owned Quadramed, the current owner is Harris; and

WHEREAS, the Senior Vice President of EITS will be responsible for the administration of this contract.

NOW, THEREFORE, BE IT

RESOLVED, the New York City Health and Hospitals Corporation (“NYC Health + Hospitals”) is hereby authorized to execute an amendment to extend its contract with Harris Computer Corporation (“Harris”), successor in interest of Quadramed, to continue maintenance and support of NYC Health + Hospitals’ legacy electronic medical record system, Quadramed, for a term of three-years with four (4) one-year renewal options, in an amount not to exceed $61,316,936.00.
EXECUTIVE SUMMARY
AMENDMENT TO EXTEND THE AGREEMENT WITH HARRIS TO CONTINUE OPERATION AND SUPPORT OF THE QUADRAMED ELECTRONIC MEDICAL RECORD

Background

The New York City Health + Hospitals (H+H) currently uses proprietary software to support its legacy Electronic Medical Record (EMR). The firm selected to develop an automated system for HHC was solicited through an RFP issued in June 1989. The contract was awarded to Health Data Sciences (HDS) in 1991 to provide for the purchase of a perpetual software license, development, installation, training and maintenance of an automated EMR for H+H. In January 1999, the contract with HDS Corporation/d/b/a Per-Se Technologies for software maintenance, support, training and consultation services was extended through December 31, 2006. In July 2003, Misys Hospital Systems, Inc. (Misys) purchased Per-Se Technologies’ Patient 1 product, the software and code that currently support HHC’s EHR and renamed the product “Misys CPR”. At that time, H+H agreed to accept the assignment of its contract and all related service agreements from Per-Se Technologies to Misys Hospital Systems, Inc. In July 2007 Quadramed Corporation announced it would be acquiring Misys Computerized Patient Record (now referred to as qCPR) and then in March 2010, Francisco Partners completed a private acquisition of Quadramed Corporation and again in 2013, it was acquired by Harris Computer Corporation. Currently, H+H is undergoing a major upgrade to a new EMR by Epic Systems (EPIC) which is expected to be completed by the end of 2019. It is in the best interest of the H+H to renew the contract with Quadramed for a minimum of three years (with two one-year renewal options). Currently, Quadramed is the only vendor with the staffing and expertise to support this Clinical Information System application. Execution of this contract will allow H+H the ability to maintain its current legacy EMR (qCPR) operations and continue to meet any changing guidelines/regulations for both Federal, State and City while facilities are still live on qCPR. As each H+H facility becomes live on the EPIC EMR the Quadramed EMR will revert to a read-only model. This read-only version will allow continued access to patient records as a reference assuring as close to continuity of care, as possible.

Costs

The total contract cost for three years including two one-year renewals is projected to be $50,882,209.00. As with the current contract, there is a baseline and included annual increases in the current rates for staffing, which are low by market standards, and annual increases in costs for support and maintenance. The cost savings associated with the 4th Amendment compared to the 3rd Amendment is considerable less than the prior contract by almost 50% based on a five-year comparison. This reduction is due primarily by leveraging a wind-down fee scale with an associated 60% savings when qCPR is converted to a read-only state as Epic goes live. In addition to this savings, Quadramed will offer identical maintenance support that it currently offers to all full production sites that are still using qCPR as the core EMR.

Benefits

As one of the early adopters of computerized patient records, the corporation has been among the leaders in the use of this technology to enhance patient safety, improve the quality and continuity of patient care and support improvements to the corporation’s financial management. Access to over twenty years of patient data is critical as the Corporation migrates from its legacy system, Quadramed to Epic. This contract will assure all caregivers will continue to have access to the patient data throughout the next three to five years as H+H completes the installation of Epic at all facilities. This will also allow H+H the time necessary to continue utilizing qCPR for Long Term and Sub Acute care facilities as it concludes a decision regarding an electronic medical record for those care areas. An appreciated cost savings which is immediate upon contract signing for three Quadramed sites in 2018 with the remainder appreciating this cost savings in 2019 on Annual Support and Maintenance by a cost reduction over about 60% in comparison to the third amendment while maintaining 24/7 full support coverage by Quadramed.
Quadramed
Contract Renewal
The “4th Amendment”
September 13, 2018

Kevin Lynch
Senior Vice President / Chief Information Officer

Al Garofalo, DPM
Senior Assistant Vice President / Clinical Information Systems
## Contract History

<table>
<thead>
<tr>
<th>Date Executed</th>
<th>Agreement</th>
<th>Vendor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 30, 1993</td>
<td>Master Contract</td>
<td>Health Data Science</td>
</tr>
<tr>
<td>Sep 28, 1999</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Amendment</td>
<td>Per Se Technologies</td>
</tr>
<tr>
<td>July 01, 2006</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Amendment</td>
<td>MISYS Corporation</td>
</tr>
<tr>
<td>July 01, 2011</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Amendment</td>
<td>Quadramed</td>
</tr>
<tr>
<td>July 1, 2018</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; Amendment</td>
<td>Quadramed</td>
</tr>
</tbody>
</table>
Benefits

● Assures all H + H providers will continue to have access to the Quadramed (qCPR) while the implementation of Epic at all facilities is completed.
● Assures all H + H providers post Epic Go-Live will have Read access to the patient record within Quadramed.
● Appreciated savings upon contract signing for three Quadramed sites (Queens, Elmhurst and Coney Island) using the Read-Only-Access pricing model. The remainder of the site will be appreciating this cost savings in 2019 as they go live with Epic.
● Permits the necessary time to review potential cost savings for a permanent archival solution to Quadramed.

Risks

● The anticipated savings are directly aligned with each Epic Go-Live. A change in the EPIC timeline will result in a significant increase per quarter (60%) and a delay in the appreciation of these savings.
● The Read-Only rate includes a 60% discount based on timely payment of invoices. Failure to meet those requirements will result in only a 50% discount rate.
Potential Savings

Our legacy EMR (Quadramed) has been the source of truth for the patient medical record for over 25+ years and the challenge ahead is to assure our care-teams continue to have access to this information post Epic. Our recent data indicates that over 7-10% of the users at our former Quadramed sites (Queens, Elmhurst and Coney Island) are still accessing Quadramed for patient information look-up. High utilizers include Medicine, Surgery, Nursing, Mental Health, Emergency, Obstetrics, Laboratory and Radiology,

**Action Plan**

Assembling a clinical workgroup consisting of CMIO’s, CMO’s and to review and recommend to;

- Continue currently with Quadramed post Epic Go-Live, in a Read-Only state with the assumption to Sun-Set the product in the future years as dependency on referencing the legacy medical record is no longer a factor.

- Continue with our current archival solution (Compass) making recommendations for enhancements which will allow for an earlier migration from Quadramed or;

- Review alternate 3rd party Archival Vendors to determine if their product can meet the needs of H+H for a long term archival system.
## Cost Breakdown

<table>
<thead>
<tr>
<th>Category</th>
<th>Q3-18 Q2-19</th>
<th>Q3-19 Q2-20</th>
<th>Q2-20 Q3-21</th>
<th>Q3-21 Q2-22</th>
<th>Q3-22 Q2-23</th>
<th>Q3-23 Q2-24</th>
<th>Q2-24 Q3-25</th>
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<tbody>
<tr>
<td>eRX Licenses</td>
<td>$2,700,000</td>
<td>2,085,750</td>
<td>$347,625</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>$5,133,375</td>
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<tr>
<td>Professional Services</td>
<td>$750,000</td>
<td>$772,500</td>
<td>$795,675</td>
<td>$819,545</td>
<td>$844,131</td>
<td>$869,455</td>
<td>$895,539</td>
<td>$5,746,864</td>
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<tr>
<td>LTC / Subacute Care Maintenance Support</td>
<td>$8,166</td>
<td>$53,527</td>
<td>$61,985</td>
<td>$63,817</td>
<td>$65,732</td>
<td>$67,704</td>
<td>$69,735</td>
<td>$390,642</td>
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<tr>
<td><strong>Total with Contingency</strong></td>
<td>$16,882,219</td>
<td>11,028,184</td>
<td>$7,795,228</td>
<td>$6,167,616</td>
<td>$6,290,853</td>
<td>$6,478,875</td>
<td>$6,673,961</td>
<td>$61,316,936</td>
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## Contract Cost Comparison

<table>
<thead>
<tr>
<th>Date Executed</th>
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<td>Sep 30, 1993</td>
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<td>$40,923,393</td>
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<td>Sep 28, 1999</td>
<td>1st Amendment</td>
<td>Per Se Technologies</td>
<td>$57,988,999</td>
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<tr>
<td>July 01, 2006</td>
<td>2nd Amendment</td>
<td>MISYS Corporation</td>
<td>$90,000,000</td>
</tr>
<tr>
<td>July 01, 2011</td>
<td>3rd Amendment</td>
<td>Quadramed</td>
<td>$137,589,936</td>
</tr>
<tr>
<td>July 1, 2018</td>
<td>4th Amendment</td>
<td>Quadramed</td>
<td>$61,316,936</td>
</tr>
</tbody>
</table>
We are seeking approval to enter into contract with Quadramed for:

- qCPR – Electronic Medical Record

Terms: Three Years with Four (1) year renewals

July 1, 2018 through June 30, 2025
RESOLUTION

Authorizing New York City Health and Hospitals Corporation (the “System”) to execute an agreement with Fusion, a division of Fusion Capital Management, to procure a Correctional Health specific electronic medical record for the System’s Correctional Health Services division with primary care, pharmacy, specialty services, mental health and drug treatment in 11 NYC jails, with an initial term of three years with two one-year options to renew solely exercisable by the System and with total amount over the combined five-year term not to exceed $12,999,354 to pay Fusion.

WHEREAS, an application to issue a request for proposals was presented before the Contract Review Committee at its August 16, 2018 meeting and was approved by its approval letter dated August 16, 2018; and

WHEREAS, after the Office of Supply Chain Services issued a request for proposals, three (3) proposals were received and upon final evaluation by the Selection Committee, Fusion was rated the highest; and

WHEREAS, under the proposed agreement Fusion will install, configure and set up its Correctional EMR for Correctional Health Services by March 31, 2019; and

WHEREAS, Fusion will provide EMR and interface maintenance; and

WHEREAS, the proposed agreement for Fusion services will be managed by the Senior Vice President for Correctional Health Services.

NOW THEREFORE BE IT:

RESOLVED, that New York City Health and Hospitals Corporation be and hereby is authorized to execute an agreement with Fusion to purchase, install, configure and set up its EMR for the System’s Correctional Health Services with a term of three years with two one-year options to renew solely exercisable by the System and with total amount over the combined five-year term not to exceed $12,999,354.

EXECUTIVE SUMMARY
RESOLUTION TO AUTHORIZE CONTRACT WITH FUSION

BACKGROUND: The purpose of the proposed agreement is to replace Correctional Health Services electronic medical record vendor before it migrates to a web-based ambulatory product which would undermine the delivery of healthcare in the correctional environment. Conversion to a correctional specific vendor will improve efficiency and patient safety, and minimize the need for labor- and paper-intensive workarounds.

PROCUREMENT: The System issued a Request for Proposals on August 21, 2018. Proposer questions were accepted through August 23, 2018, 3pm. Three (3) proposals were received, evaluated and scored. Final evaluation and scoring was completed by August 31, 2018. Through this process the Selection Committee evaluated the proposals and
presentations on the basis of the proposed EMR functionality, technical requirements and interoperability, previous experience, and cost. Fusion was selected on these criteria.

**BUDGET:** The cost of the proposed agreement will not exceed $12,999,354 over the full five year term. The costs consist of the System’s projected payments to cover software purchase, installation, set up, interfaces, maintenance and annual license fees. The total amount has been budgeted and signed off by the Central Finance.

**TERM:** The term of the proposed agreement is three years with two one-year options to renew solely exercisable by the System.
Background on Current CHS EHR Vendor

- eClinicalWorks (eCW) has been CHS’ EHR vendor since 2008
  - Selected by NYC DOHMH and had to be retrofitted for Correctional Health Services with myriad workarounds.

- With the transition to H+H, CHS identified the opportunity for an alternative EHR and secured funding for same.

- $155M eCW-DOJ settlement in 2017 for falsifying capabilities.

- eCW has since focused on a new web-based product.
Limitations of Current EHR

Examples include:

- Providers must toggle between two different applications to determine accurate medications.
- In-jail prescriptions still require paper workarounds, increasing medication errors and requiring extra reporting and surveillance.
- Nursing workflows that consist of Standing Orders and recurring tasks within a single day are not supported (e.g. wound care, finger sticks, etc.).
- Additional staff resources must be used to monitor and flag critical labs and referrals.
- Workarounds required for prioritization, scheduling and call down.
- Generic and brand name drugs are separately listed.
Correctional Health EHR Deliberation Timeline

<table>
<thead>
<tr>
<th>Q2 2017</th>
<th>Q3 2017</th>
<th>Q4 2017</th>
<th>Q1 2018</th>
<th>Q2 2018</th>
<th>Q3 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>May:</strong> eCW $155m settlement with D.O.J for falsifying capabilities; EITS recommends CHS begin exploring alternatives</td>
<td><strong>July:</strong> CHS explores CH EHR market; invites EHR vendors to demo their products</td>
<td><strong>November:</strong> CHS conducts 1st gap analysis with Epic; Too many gaps to be viable without significant customization</td>
<td><strong>January:</strong> EITS and special advisor press eCW to address outstanding issues and stabilize EHR</td>
<td><strong>April-June:</strong> CHS and Epic Go Team continue to meet and explore Epic</td>
<td><strong>July:</strong> Epic confirms its EHR is not a ready solution for CHS. EITS confirms it cannot take on another EPIC project until 2020 at the earliest.</td>
</tr>
<tr>
<td><strong>September:</strong> Sandbox with CH EHR vendor</td>
<td></td>
<td><strong>December:</strong> CHS, with EITS leadership, discuss EHR with interim H+H President and Special Advisor</td>
<td></td>
<td><strong>May:</strong> eCW demos new ambulatory SaaS product requiring all new retrofits and workarounds for correctional health. Development on existing product halted by eCW.</td>
<td><strong>August:</strong> CIO confirms CHS remaining with eCW is not a viable option; Supply Chain partners with CHS on solicitation process</td>
</tr>
</tbody>
</table>
Procurement Background

- **Historical spend.** $4.6M for the install and customization, ~$550k for annual license.

- **CRC Budget Authorization:**
  - One time capital expense of $6.468m for purchase of software, install, configuration, set up of interfaces and implementation.
  - Annual operating expense of $1.625m for annual maintenance, licensing, and interface support, FY20 through FY23.
  - FY19 operating expense of $30,000.

*Note: Difference between annual expense historic vs. proposed explained by vast differences in EHR capabilities e.g. eCW lacks Nursing and Dental Modules, Bed Management, Group Notation, Infirmary Console.*
Overview of RFP Procurement Process

- CRC approved RFP request on 8/16/2018
- RFP posted 8/17/2018
- Proposer questions due 8/21/2018
- Submission deadline 8/30/2018
- 3 RFPs were received: Fusion, NextGen and Naphcare

### Scope Requirements

<table>
<thead>
<tr>
<th>National Standards</th>
<th>Correctional Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical decision supports</td>
<td>Communication with DOC Inmate Information Management System</td>
</tr>
<tr>
<td>Integration and interfacing</td>
<td>Ability to collect and report on federal, state and local regulatory and oversight requirements</td>
</tr>
<tr>
<td>Interoperability</td>
<td>Ability to follow patients and adjust pharmacy plan based on housing unit</td>
</tr>
<tr>
<td>ONC-ACB certification</td>
<td>Infirmary bed management with DOC daily list of approved medical devices</td>
</tr>
<tr>
<td>Order sets</td>
<td>Suicide watch, aggressive patient, heat sensitive patient list updated by shift and sent to DOC</td>
</tr>
<tr>
<td>Structured data</td>
<td>Transfer logic related to “turn-around” patients</td>
</tr>
<tr>
<td>Med reconciliation</td>
<td></td>
</tr>
</tbody>
</table>


Criteria for EHR RFP

Substantive Criteria

- EHR application functionality: 40%
- Proposed implementation plan: 25%
- Past experience with correctional health systems: 20%
- Cost: 15%

Evaluation Committee

- Dr. Al Garofalo, Sr. AVP, EITS
- Dr. Ross MacDonald, Sr. AVP/Chief Medical Officer, CHS
- Sara Gillen, Sr. AVP, CHS
- Jessica Laboy, AVP, CHS
- Jeffrey Herrera, Sr. Director, CHS
- Aaron Anderson, Sr. Director, CHS
Background on Selected Vendor

- Fusion is an Electronic Health Record system developed specifically for correctional settings.

- Current clients include over 150+ adult and juvenile corrections agencies, including:
  - Connecticut Department of Corrections
  - New Jersey Department of Corrections
  - Rhode Island Department of Corrections
  - Washington DC Department of Corrections
  - Harris County Jail (Houston, TX)

- Fusion is ONC-ACB 2015 Certified Electronic Health Record Technology as defined by the Office of the National Coordinator for Health Information Technology.
Fusion Contract Deliverables

- Fusion EHR, including medical, dental, and behavioral health
- Infirmary bed management
- Interface setup (JMS, pharmacy, radiology, labs, Healthix)
- Epic CareQuality integration with H+H
- Project Management
- Consulting and Go-Live
- Training
- Annual licensing and support for core product and all interfaces
- Professional support – 24/7/365
Impact of New EHR on H+H

- Fusion and Epic will communicate via the Carequality nationwide interoperability and integration framework for data exchange.

- No consultants or additional staff will be required. CHS clinical support staff will work with the new EHR vendor.

- Impact on EITS resources will be minimal. EITS will assist with initial provisioning of virtual servers and storage space already allocated to CHS in the Sungard Data Center for vendor setup. Routine server maintenance and support will then follow.

- CHS has been working closely with numerous EITS teams, most notably Dr. Garofalo and Mr. Lutz and their teams.
Approval Request

- We seek approval to enter into contract with Fusion as an interim solution to provide software, configuration, setup and maintenance at ~11 NYC jails:
  - Effective October 1, 2018
  - Three year initial and two one-year extensions
  - Comprehensive and complete correctional-focused EHR
  - Total not to exceed $12,999,354 for the five-year period
  - CHS has OMB approved capital and expense funding to replace the current EHR.