AGENDA

INFORMATION TECHNOLOGY COMMITTEE

Meeting Date: March 16, 2017
Time: 10:00 AM
Location: 125 Worth Street, Room 532

BOARD OF DIRECTORS

CALL TO ORDER — **MS. YOUSSOUF**

ADOPTION OF MINUTES

November 3, 2016
February 10, 2017

CHIEF INFORMATION OFFICER REPORT — **MR. GUIDO**

ACTION ITEMS:

Authorizing the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to execute contracts for the purchase of hardware, software, and services from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $10,000,000 for a one year period. — **MR. GUIDO**

2) Authorizing the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to negotiate and execute a contract amendment with McKesson Technologies Inc. ("McKesson") to obtain the licenses, services, training and maintenance required to implement a consolidated diagnostic viewer in conjunction with the Radiology Integration and Practice Management Services Agreement made with McKesson in February 2016 (the "Agreement") for a period of two years (the remaining Initial Term of the Agreement) with two, one-year options to renew, exercisable solely by NYC Health + Hospitals, in an additional amount of $6,668,270.94 (includes a 10% contingency of $606,206.45) for a total increased contract amount not to exceed $23,353,125.94. — **MR. GUIDO**

INFORMATION ITEM:

1) EITS Business Continuity Follow-Up — **MR. MANJORIN**

OLD BUSINESS
NEW BUSINESS
ADJOURNMENT

NEW YORK CITY HEALTH + HOSPITALS

MINUTES

Meeting Date: November 3, 2016

INFORMATION TECHNOLOGY COMMITTEE

ATTENDEES

COMMITTEE MEMBERS

Gordon Campbell, Chair
Josephine Bolus, RN
Ram Raju, MD, President
Jennifer Yeaw (representing Steven Banks in a voting capacity)

NYC HEALTH + HOSPITALS CENTRAL OFFICE STAFF:

PV Anantharam, Senior Vice President and Chief Financial Officer
Vikrant Arora, Assistant Vice President and Chief Information Security Officer, Enterprise Information Technology Services
Tammy Carlisle, Associate Executive Director, Corporate Planning
Robert De Luna, Senior Director, Press Secretary
Olga Deshchenko, Director, Presidents Office
Thomas J. Dicks, Senior Consultant, Enterprise Information Technology Services
Kenra Ford, Assistant Vice President, Clinical Laboratory Operations, Office of HealthCare Improvement
Dr. Alfred Garofalo, Senior Assistant Vice President, Enterprise Information Technology Services
Natalie German, Senior Director, Patient Safety Accreditation
Sal Guido, Senior Vice President and Chief Information Officer, Enterprise Information Technology Services
Colicia Hercules, Chief of Staff, Office of the Chairperson
Janet Karegozian, Assistant Vice President, Enterprise Information Technology Services
Michael Keil, Assistant Vice President, Enterprise Information Technology Services
Garfield King, PACS Administrator, Enterprise Information Technology Services
Patricia Lockhart, Secretary to the Corporation
Randall Mark, Chief of Staff, President's Office
Eric Orner, Director, External Communications
Antonio Martin, Executive Vice President and Chief Operating Officer
Jewel Roberson, Senior Business Analyst, Enterprise Information Technology Services
Chelsea-Lyn Rudder, Director of Marketing & Communications, Press Secretary
Salvatore Russo, Senior Vice President & General Counsel, Legal Affairs
Julio Santos, Senior Director of Clinical Applications, Enterprise Information Technology Services
Barry Schechter, Assistant Director, Enterprise Information Technology Services
Brenda Schultz, Senior Assistant Vice President, Enterprise Information Technology Services

OTHERS PRESENT:

Osmund de Souza, Account Executive, Juniper Networks
Robert Olman, Duccura
Travis Rochon, Duccura
Shaylee Wheeler, Office of Management and Budget

INFORMATION TECHNOLOGY COMMITTEE
Thursday, November 3, 2016

Gordon Campbell, Chair of the Committee, called the meeting to order at 2:20 PM. The minutes of the June 9, 2016 Information Technology Committee meeting were adopted.

CHIEF INFORMATION OFFICER REPORT

Mr. Guido, Senior Vice President and Chief Information Officer, presented the Chief Information Officer Report. He said the Service Line Leaders would present on four of EITS' five major projects: Compass, Enterprise Resource Planning (Project Evolve), Meaningful Use, and the Radiology Integration Program. The GO (electronic medical record) team was not able to make it due to a previous engagement. He said we will get a full update from them next month.

Mr. Guido discussed the EITS staff survey. He said that when he began his role in 2015, we sent surveys to staff. Over the years, he said, we have made progress using the feedback from those surveys. But we found we had room for improvement.

He said we found the respondents (40% response rate) felt in general that they were contributing to the success of the organization and to Dr. Raju's Vision 20/20. Many were pulled into strategic meetings at all facilities to make sure they were engaged and understood our strategic direction.

Mr. Guido said what we learned from the last survey is there was room for improvement, specifically around women in the division and how women participated in the strategic decisions being made within EITS and NYC Health + Hospitals.

He said in response to this, a Women in IT committee was formed. He said focus groups were held and they yielded great recommendations so far. He said this committee will be responsible for making recommended changes and they will have the full authority and power to implement those changes within EITS. He said we will report back. He said it was a great step forward for us as we incorporate everybody into the decision-making process.

Mr. Russo said he agrees and that is why organizations like Girls Who Code have been created. He gave much credit to Mr. Guido and the organization for this.

Mr. Guido thanked Mr. Russo and said this concluded his presentation.

INFORMATION ITEM:

Mr. Guido introduced his Service Line Leads to give updates on the four major projects:

The following introduced themselves to the Committee: Vijay Saradhi, Assistant Vice President, Data Sciences for the Compass Platform; Janet Karageozian, Assistant Vice President, Business Applications, for Enterprise Resource Planning *(Project Evolve)*; and Alfred Garofalo, DPM, Sr. AVP, Clinical Information Systems for Meaningful Use and the Radiology Integration Program. They spoke to the presentation "Enterprise IT Services Program Updates."

COMPASS

Mr. Saradhi said when he took on his role about a year ago, the reporting and analytics were all over the place. He said we wanted to have a single place where all executives could go to look at all the data and analytics. He said we developed a data platform called Compass to provide direction for senior executives.

He said it is a single point to find information and it is designed to support Vision 20/20, specifically reducing costs and improving quality of care, leading to better patient outcomes.

Mr. Saradhi said Compass was made in-house entirely by Data Sciences staff and Mr. Martin helped launch it for us on September 29, 2016. He said users over the past month have been giving very positive feedback.

Mr. Guido mentioned that there are now over 250 users of Compass and the number is growing.

Mr. Saradhi gave a list of Compass' Data Domains, including Patients and Visits, Length of Stay, Readmissions, Healthcare Associated Infections, Emergency Department, Opioid Prescriptions, Patient Satisfaction, Payers/Insurance, Value Based Purchasing, and Real-time Analytics.

He said that presenting Real-time Analytics is very complex and we were able to achieve this.

Dr. Raju asked if he could look at data on length of stay and readmissions, to see if there is a correlation.

Mr. Saradhi said that is a great question and something we are working on. He said right now you can see them separately. He said we are working on producing the capability to merge different types of data for the future. It is an enhancement we are working on.

Mr. Saradhi said in the past hospitals could not see if a patient who was discharged from their site were re-admitted to other NYC Health + Hospitals sites. He said we solved this issue because now you can see this on Compass.

Dr. Raju said he would really like to see correlation between staffing information and patient experience or satisfaction. For instance, if I find that the patients on the eighth floor at NYC Health + Hospitals/Jacobi are not giving great satisfaction reviews, can I find out the nursing and other staffing taking place there?

Mr. Saradhi said absolutely. He said if a patient got a cold meal, you can find out who was on staff at that time.

Dr. Raju said he would like to know from a human resources point of view how much of this is related to overtime.

Mr. Campbell asked how the system is populated with data.

Mr. Anantharam said most of the data comes from our financial systems, like Soarian.

Mr. Guido said we get information from two places. The first is from Soarian and our revenue cycle systems. The second is from our electronic medical record (EMR). He said we correlate the two to see if there are any discrepancies.

Mr. Campbell asked about the Scorecard, regarding things like Patient Satisfaction, where do we get that data?

Mr. Saradhi said that for Patient Satisfaction, we get that from Press Ganey, and we get other data from the Center for Disease Control (CDC). The numbers shown here are our official numbers.

Dr. Raju said that the reason Mr. Guido and his team got on this is because we wanted one source of truth. We did not want one number from Soarian and another from the EMR. He said some people are sent from one clinic to another, so it will show as one visit in Soarian and three to the EMR because of how the doctors decided to do things. So we needed one source for numbers.

Mr. Campbell asked how you decide what to use?

Mr. Guido said we have a data governance group that meets on a regular basis and we prioritize what is moved to Compass. If, for example, we wanted to see a P&L (profit and loss) statement or patient safety information for each hospital, we would know which data to take. He said we did not want to take all the data because it is so time consuming and you get nothing out of it. This is voted on. He said Mr.

Anantharam, Mr. Martin, and people from around the organization who sit on that committee to make these decisions. He said we get information from internal and external sources.

Ms. Bolus asked how you decide which to use if they are different.

Mr. Guido said if this is the case, we know exactly who we need to speak to within NYC Health + Hospitals to discuss this discrepancy. He said only one source of data is not as good as two. He said we wanted to get multiple sources to make sure we were getting extremely accurate data. Mr. Guido said the same goes for claims data. He said Mr. Anantharam gets all the billing data in the Revenue Cycle system. But then we marry it up against the State's information to see if it is accurate and if we are getting paid for everything. He said it helps point us away from potential problems or to solve them.

Ms. Bolus asked if our findings would be acceptable to a group with different findings, especially if we come to them and say there was a problem that needs to be fixed.

Mr. Anantharam said we have to figure out which data is the best to use for a particular system to have truth in reporting. He said as we move from disparate systems to centralized systems like EMR and ERP, the data gets better.

Mr. Guido said we are developing a standard way of inputting the data into the systems so we have a standard way of looking at it from an individual hospital level.

Dr. Raju said in the past, there were inaccuracies but we had no way of finding them. He said this system allows us to look at it in a different and more accurate way. He said sometimes it was in our favor and sometimes it was in the government's favor. He said we can now be more comfortable with our data.

Ms. Yeaw said she understands culling through the portal to find the information as it exists right now so that you can see and make decisions on using it. She asked, at some point, does the portal evolve into its own system of record? Or does it stay a portal that we use to pull information from?

Mr. Saradhi said Compass will never be the system of record. Only the finance systems will be the system of record. Compass only provides a uniform way of looking at the data. He said people can opine on the system and there is a feedback mechanism built into the system.

Mr. Saradhi returned to the presentation to discuss Features and Capabilities, including Enterprise view of data, Real-time analytics, Previously unavailable capabilities, Self-service, View data in various formats and styles, Reference to provide visibility into definitions, and User feedback. He said the top line of this slide shows real-time data, such as number of deceased.

Mr. Saradhi added that his team is working on multiple Enhancements Under Development, such as Develop Dashboards for Three Service Line Leads, Dashboards for Business Areas, Subject Area Specific Dashboards, Strategic Program Dashboards, and Additional Data Domains.

Mr. Campbell asked if you have had any discussions with Maryann Strutsman and her team as they work on social service platforms?

Mr. Guido said yes, we have been speaking with City entities. We spoke with one for Population Data because there is a massive amount of data there that could benefit us in many ways. He said Mr. Saradhi and his team worked to be able to get external data into the system and we are using that now.

Mr. Campbell said he could see City data migrating over and vice versa.

Mr. Guido said we have to be careful with that because we have privacy laws we must obey when considering sharing data. He said we worked with Mr. Russo and his group on this.

Mr. Campbell said he knows this very well but for many years, City agencies did not share data. He said I encourage counsel to be mindful of HIPAA (Health Insurance Portability and Accountability Act), but sometimes sharing can be so helpful on so many fronts.

Ms. Yeaw said there is a lot of potential there. We understand the restrictions but we want to come to a view of sharing. She said NYC Health + Hospitals uses HHS Connect, which is also a portal, so maybe there is opportunity there.

Mr. Guido said we have looked into this preliminarily. We worked with Mr. Russo on ways of sharing data. He said among the City agencies, we came up with a model to protect ourselves as well as protect the data in a very effective manner. Action Health for uninsured patients was the first program we worked on with this. Now that we have the model, he stated we can move forward with more initiatives.

ENTERPRISE RESOURCE PLANNING (ERP)

Ms. Karegozian spoke to the slides titled Enterprise Resource Planning (ERP) Program – Project Evolve. She said after a very lengthy search for a new finance and supply chain system, we selected PeopleSoft and got approval from the Board in December 2015. She said that currently our systems are antiquated. Reporting is not integrated, making it difficult and cumbersome. She said our resources are hard to find and our processes are lengthy and time consuming. She said for example it takes 2.5 hours to process one week's worth of timesheets for Central Office only.

Ms. Karegozian showed the slide Current State of Our Business Infrastructure. She said that it is currently siloed and not efficient. She then addressed "What is an Enterprise Resource Planning (ERP) System?" She showed that it is an integrated suite of business applications that share a common process and data model, covering broad and deep operational end-to-end processes, such as those found in finance, human resources, distribution, manufacturing, service and the supply chain.

Ms. Karegozian spoke to the ERP "High-Level" Program Delivery Schedule that was developed with our implementation partners at Deloitte. She said Phase 1 will include Core Financials, Budget, Core Supply Chain, and Inventory Management. She said the first rollout will be in a phased approach starting July 1, 2017. Rollouts will be every three months and as we get better, possibly get more aggressive in our timelines.

She said Phase 2 will include Cost Accounting which goes live July 1, 2018, and Payroll Processing, which goes live January 1, 2019. Time Capture and Work Scheduling will roll out in a phased approach shortly thereafter.

Ms. Karegozian listed accomplishments to date under ERP Program Update. These include: Finalized Business Process Design, Completed Initial System Configuration, Completed Configuration Unit Testing, Completed initial Hyperion Budgeting System Test, Hyperion Budgeting System Test (Round 2) Scheduled for November 21st, Finance and Supply Chain System Test Scheduled to Begin on November 28th, as well as Development of Interfaces, Enhancements, and Data Conversion Programs.

Ms. Karegozian said she was happy to report that things are going well, that the program is on schedule and on budget. She said she is pleased that everyone is 100% committed to the project, including Deloitte, Elizabeth Guzman in Finance and Jun Amora in Supply Chain.

Dr. Raju thanked Ms. Karegozian for taking this on, saying it will change the way we operate as an organization. He said we want our leaders to have the information they need to manage better.

MEANINGFUL USE

Dr. Garofalo next presented on Meaningful Use – Eligible Professional (EP) and Eligible Hospital (EH). He spoke to Meaningful Use Eligible Professional Incentives. As background, he explained that this is a project

which sets specific goals are created by the Centers for Medicare and Medicare Services (CMS). The objectives are to improve quality, safety, and efficiency; Reduce health disparities, and engage patients and family; and Improve care coordination, and population and public health.

Dr. Garofalo explained that many people associate Meaningful Use with incentive dollars, but the objectives are themselves very important. He said getting money for the program is a two-step process: Step I focuses on registering eligible providers/professionals (EPs). Finance is responsible for registering these individuals. This is commonly known, he said, as the Adopt/Implement/Update (AIU) phase. He said that every EP who is eligible to participate in the program gets $21,500 from CMS. In 2014, NYC Health + Hospitals successfully completed AIU for 894 providers, which brought in $18,997,500. In 2015, we on-boarded an additional 1,291 providers to get $21,972,500. By the end of 2016 (the last year to attest these individuals), we will be $28,985,000 for 1,364 providers.

Dr. Garofalo said that Step II is really the core of the program. These individuals have to prove to CMS that they are meeting these core measures. He explained that there are two programs: Eligible Provider and Eligible Hospital (EH). He said we have received all monies for Eligible Hospital and now we are attesting to that phase.

He said Step II begins in July 2017. Each attesting EP is eligible for $8,500. Between 2017–2021 (a five year period), we will have approximately 3,547 Eligible Providers bringing in a total of $131,622,500. He said that many of the CMS requirements do not cover certain specialties, like Pediatrics. They are eligible to participate but they do not need to attest to it. Therefore, the numbers might fluctuate.

Dr. Garofalo said we can achieve six of the ten core measures without any issue: patient protected information, clinical business support, computerized order entry, electronic prescribing, and health information exchange (HIE). The other four are very important to the patient, starting with patient portal, which he defined as allowing 24-hour access by the patient to their personal health information from anywhere with an Internet connection. He said our current portal has been open for 18 months and it has 87,000 of NYC Health + Hospitals' patients have registered for its use. He said 80% - 85% of those patients have been accessing the portal two or more times over the past year. This means that after treatment they are looking at their information.

Dr. Garofalo said the portal also allows exchange of information between patient and providers in regards to the patient health care record. He gave a few examples of the information: Recent Clinical / Inpatient visits, Discharge summaries, Current/Past Medications, Immunization History, Allergies and Lab and Radiology Results.

He then gave a quote from Health IT magazine from November 2015: "The overarching goal of the portal is to enhance patient-provider communication, empower patients, support care between visits, and, most importantly, improve patient outcomes."

Dr. Garofalo showed a page from the portal in the presentation titled "Welcome to Your Personal Health Plan." He wanted to show how he easy it is to use.

Ms. Yeaw said it looks great. She asked if alerts are being sent.

Mr. Guido said you will see coming up that in addition to emails, we are doing secure texting.

Dr. Garofalo said this is another basis for other CMS requirements for Meaningful Use. He went to the slide Three Challenges: Medication Reconciliation, Secure Messaging, and Health Information Exchange.

He started with Medical Reconciliation. He said this is a "Major Component" of patient safety and covers the process of comparing the patient's medication order to all of the patient's medications to prevent errors, omissions, duplications, incorrect or over-dosing and interactions with medications the patient may already be taking.

Dr. Garofalo gave the example of a patient in the Emergency Department who is asked which drugs, if any, he is taking. That might change while they are in treatment. Or the patient is taking an over-the-counter medication, so the doctor needs to know what it is. He said it is important that the patient might need to go back to the original dosages after being discharged. He said this information passes through the portal and allows for interaction with the physician so the patient knows what to do.

Dr. Garofalo then spoke about Secure Messaging, which allows for the communication between Physician and Patient utilizing a secure method to exchange information or questions the patient may have, for instance, to medications they are currently taking or other issues relevant to the patient's health and even as a remote consultation with the patient regarding a new or a pre-existing condition. The communications become part of the EMR for recall and referencing by other members of the health care team. He said it allows for one-on-one, almost real time conversations.

Ms. Bolus asked if she saw the doctor yesterday, she contacted him today, and wanted an answer in 20 minutes, how would that work?

Dr. Garofalo said there is an application loaded on the patient's smart phone that would allow this to happen.

Mr. Guido said that if the patient said it is an emergency, the physician will be texted in real time so the answer will be immediate. He said these three items are where the patient feels the most impact.

Ms. Bolus said when she was discharged, she got a paper about this but no application was loaded for her.

Mr. Guido said there is a group of people whose job it is now to train people to use the portal. He asked which facility it was (Kings County) and said he would follow up.

Ms. Bolus asked whose responsibility it is.

Mr. Guido said we have around 30 people dedicated to this now, training the patients. He said we will increase this so that the patients will be able to take action for their care.

Ms. Yeaw asked, when the nurses are training patients to do this, are they saying in case of an emergency you should use the app or you should call?

Mr. Guido said the portal will be updated to have that real-time ability. He said we consolidated our help desk for patients and it is staffed 24/7. Patients can call and the representatives have access to all their medical information.

Ms. Yeaw said this is fantastic but there are some things a system can do and others only a human can do. So she would like to know what the capabilities are.

Mr. Guido said honestly right now we are learning. It is new and probably not the right time to move all the technology out to patients yet.

Ms. Yeaw said she understood.

Ms. Bolus said it is fantastic but senior citizens want to use the phone, not smart phones.

Mr. Guido said we will not take one away and we have to learn about our unique patients' needs.

RADIOLOGY INTEGRATION PROGRAM

Mr. Guido asked Dr. Garofalo to discuss the Radiology Integration Program, which has been a great success and will be rolling out to NYC Health + Hospitals/Harlem on Wednesday, November 9, 2016.

Dr. Garofalo showed the slide Radiology Integration Vision and Framework. He said the system is summed up in the quote below integrated Radiology Operation: "A system where any image can be read at any site

within the corporation using a single platform and generating transparent performance metrics in such a way that service, quality, and productivity are improved."

He said an image from NYC Health + Hospitals/Bellevue that needs a pediatric neurologist will be sent to NYC Health + Hospitals/Kings County where that physician is. The report will then be sent back to Bellevue for immediate use.

He said this took a lot of work from McKesson (the vendor) and the Medical & Professional Affairs (M&PA) Committee, including Dr. Machelle Allen, Dr. Ross Wilson, and David Shui, as well as his team. He asked to introduce his leadership: Julio Santos, Senior Director, Radiology Integration Program, who is leading the team; Jewel Roberson, Senior Business Analyst, Enterprise Information Technology Services; and Garfield King, PACS Administrator, Enterprise Information Technology Services. He said they did a monumental amount of work in a relatively short amount of time.

Dr. Garofalo spoke to the Workforce & Operation Optimization (including Prep, Go Live, and Continuous Improvement). He also discussed the Technology Foundation of the program.

Mr. Guido said the components representing Technology Foundation, such as Speech Recognition, are now enterprise-wide, rather than just for Radiology. They are also integrated into the Epic EMR. He said we are saving money by retiring the old systems.

Dr. Garofalo spoke to Timelines & Activities. He said there are four phases with go-lives and Harlem already had a soft go-live for this system. He said the Concierge Desk links the radiologist with the physician in a much quicker and efficient manner, to the benefit of the patient. He said it is working very nicely right now.

Dr. Garofalo said Data Migration Process is happening right now so that no matter where a clinician is, they can see images from any facility. He said the cross-reading is crucial in this process (the blue box on the slide). He said there will also be continuous improvements on the analytics. He said this will help make sure that the images are routed in the correct manner to the right people, no matter where they are.

Dr. Garofalo spoke to the Program Update – Technology. This includes Workflow Intelligence in place, Business Intelligence and Data Archive, Enterprise Imaging Archive, and Enterprise Radiology Speech Recognition systems.

Ms. Bolus asked if there are additional costs.

Mr. Guido said yes, there will be. But, he said, we will be retiring 11 systems into one and NYC Health + Hospitals will have new and better technologies. He said these will save us money. We might be paying some money up front but we will have significant savings on the back end. He said we have been working with Mr. Anantharam on the returns on investment (ROIs).

Ms. Bolus asked when do we outgrow it.

Mr. Guido said the idea is to not outgrow it by constantly updating it. This will be a smaller investment than having to replace it at some point.

Dr. Raju said he appreciates how difficult this all is. He thanked everyone for their presentations and for these projects. He said finally we are going to see one system. He said we cannot afford to have radiologists in every facility so having this project will help tremendously. Kudos to all of you.

There being no further business, the meeting was adjourned 3:45 PM.

MINUTES

Meeting Date: February 10, 2017

INFORMATION TECHNOLOGY COMMITTEE

ATTENDEES

COMMITTEE MEMBERS
Stanley Brezenoff, Chair
Josephine Bolus, RN

NYC HEALTH + HOSPITALS CENTRAL OFFICE STAFF:
Paul Albertson, Senior Assistant Vice President, Supply Chain
PV Anantharam, Senior Vice President and Chief Financial Officer
Victor Cohen, Pharmacy, Assistant Vice President, Corporate Pharmacy Services, Office of HealthCare Improvement
Dr. Alfred Garofalo, Senior Assistant Vice President, Enterprise Information Technology Services
Marisa Salamone Greason, Assistant Vice President, Enterprise Information Technology Services
Colicia Hercules, Chief of Staff, Office of the Chairperson
Dr. Rajeeb Khatua, Chief Medical Information Officer, GO EMR
Patricia Lockhart, Secretary to the Corporation
Jeffrey Lutz, Senior Director, Enterprise Information Technology Services
Glenn Manjorin, Director, Business Continuity, Enterprise Information Technology Services
Antonio Martin, Executive Vice President and Chief Operating Officer
Salvatore Russo, Senior Vice President & General Counsel, Legal Affairs
Pamela Saechow, Senior Assistant Vice President, EMR Build and Implementation
Barry Schechter, Assistant Director, Enterprise Information Technology Services
Brenda Schultz, Senior Assistant Vice President, Finance

OTHERS PRESENT:
Terence Brady, Assistant Medical Director, NYC Health + Hospitals/Coney Island
Larry Garvey, Cerner
Anthony Mirdita, Chief Financial Officer, PAGNY
Travis Rochon, Duccura
Shaylee Wheeler, Office of Management and Budget

INFORMATION TECHNOLOGY COMMITTEE
Friday, February 10, 2017

Stanley Brezenoff, representing the Chair of the Committee who could not be there, called the meeting to order at 12:05 PM. Since there was not a quorum, the Committee could not vote on the minutes of the November 3, 2016 meeting, and proceeded directly into the Agenda.

CHIEF INFORMATION OFFICER REPORT

Dr. Alfred Garofalo presented the Chief Information Officer Report for Sal Guido, Senior Vice President and Chief Information Officer, who could not attend the meeting. Dr. Garofalo welcomed President Brezenoff to the first IT Committee meeting of the year.

Dr. Garofalo said that Enterprise Information Technology Services (EITS) is dedicated to help moving forward all NYC Health + Hospitals critical objectives and initiatives for the year. He said he would be highlighting Mr. Guido's CIO Report, which was in the package.

Dr. Garofalo stated that EITS would be presenting an Information Item on the GO EMR program and its preparations for the next electronic medical record (EMR) implementation at NYC Health + Hospitals/Coney Island, scheduled for February 25, 2017. He said Pamela Saechow, on behalf of Ed Marx, CIO and Senior Vice President of the Advisory Board, would be providing the committee members with an update on the program's go live readiness status.

In addition, he said EITS would be presenting its annual report on Business Continuity Planning. Glen Manjorin, Director of Business Continuity Planning and Tony Williams, Senior Director of Mid-Range Computing would be providing the members with details of our progress over the past year.

Dr. Garofalo said each month, Mr. Guido updates the committee members on the project health status of five key EITS initiatives which are in progress. Recently, at the November 3, 2016 Committee meeting, the IT Service Line leads for these programs presented their program updates. This month, the Committee Chairperson asked that the CIO Report provide the members with a snapshot of the program budgets for each of these initiatives ending December 2016. The budget has been broken down to show the total cost of the project, what has been spent (to date) and the remaining dollars. All remain on track and on budget.

Program Budgets as of December 2016:

Project Name	Project Budget	Actual Spent To Date	Total Dollars Remaining
Electronic Medical Record (EMR GO)	$764,063,230	$305,607,301	$458,455,929
Enterprise Resource Planning (ERP)	$72,000,000	$10,099,528	$61,900,472
Radiology Consolidation	$19,676,073	$7,492,719	$12,183,354
Meaningful Use (FY15 - FY17)	$14,218,383	$12,651,033	$1,567,350

Compass (Data Sciences)	$3,627,200	$3,627,200	$0

* EMR Actual Spent to Date represents amounts paid or in process of being paid thru November 2016. Refer to EMR Budget Slide included in the EMR/GO Program Update.

Dr. Garofalo reported over the past year, EITS has focused its efforts on driving transformation efforts for NYC Health + Hospitals in the projects that we have accomplished. He said we have targeted our efforts and resources to these projects which provide the most benefit to our patients. He said our goal in completing this work concentrates on solidifying NYC Health + Hospital's transformation goals of preserving our mission, maintaining the viability of NYC Health + Hospitals long term, and better meeting the health care needs of our patients.

Dr. Garofalo provided highlights to the Committee on some of the many projects which EITS teams have undertaken and completed this past year. These projects have been completed by EITS staff who also are integral in sustaining the daily operations of NYC Health + Hospitals Information Technology network. He enumerated to the Committee a list of 2016 EITS accomplishments:

Starting with the Business Applications group, he described Project Evolve, also known as the Enterprise Resource Planning (ERP) Program, as a collaborative effort among Finance, Supply Chain, and IT. It is on target for a Phase I go-live in July 2017. He said the PeopleSoft has also been upgraded.

For Clinical Applications, Meaningful Use Hospital (MUH) continued to be successful in our attestation to achieve CMS benchmarks. Dr. Garofalo said that for MU- Eligible Professional (EP), Clinical Information Systems is working with our legacy EMR provider, QuadraMed, to prepare the EMR for one of five years attesting for EP to capture incentive dollars, which now stands at $131.6M.

Regarding the Radiology Integration Program, it has rolled out successfully to four sites: NYC Health + Hospitals/Harlem, NYC Health + Hospitals/Metropolitan, NYC Health + Hospitals/Coney Island, and NYC Health + Hospitals/ Lincoln. Dr. Garofalo also mentioned the Application Rationalization-Phase I of clinical apps analysis was completed. The focus was on apps which would be retired, replaced, or interfaced with Epic. Next was Dentrix, which has a consolidation moving ahead. He informed the Committee that 11 databases for the 14 dental clinics were upgraded. Finally, Maestro Communications was implemented for blood bank to interface with Epic, QuadraMed, and blood instruments seamlessly.

Dr. Garofalo then talked about Data Sciences. He said the Business Intelligence platform called Compass was rolled out successfully and Executive Dashboards were developed and deployed.

For the Enterprise Epic EMR Program (GO EMR), Dr. Garofalo said NYC Health + Hospitals/Elmhurst, NYC Health + Hospitals/Queens, and NYC Health + Hospitals/Home Health were deployed in April 2016. The Coney Island deployment was finalized and scheduled for February 25, 2017.

Next was Enterprise Infrastructure, which had several successes including the implementation of Identity IQ and User Provisioning, Imprivata Single Sign-On and Tap N'Go access for Shared Services, upgrade of the SQL cluster environment, the migration of Webterm to Active Directory, the consolidation of mobile phone contracts, Secure Messaging using Imprivata CorText was implemented, as well as the establishment of a new Wan contract with LightTower.

Josephine Bolus asked what SQL was.

Dr. Garofalo stated it is a database. He continued by talking about Security & Operational Risk Management successes, including a Data Loss Prevention (DLP) Program being deployed, Ransomware attack prevention, and on-going security monitoring.

Dr. Garofalo said EITS staff successfully faced the challenges posed in 2016 and we are ready to tackle a new set of challenges this year. He reiterated that EITS will continue to engage and collaborate with our business units to align all initiatives in order to meet our unified goal of preserving our mission and building a competitive, sustainable organization in order to meet the health care needs of our patients.

Dr. Garofalo stated that this concluded his report to the committee.

Ms. Bolus reported that in the Dental Department, sometimes screens go down and there have been complaints.

Dr. Garofalo said for Dentrix there could be two reasons for timeouts: Windows and the program. If it is program, it could be at the workstation level. We will need to check that. He stated that he would ask Jeff Lutz and his team to check into that and get to back to Ms. Bolus. Mr. Lutz said he would follow-up.

Ms. Bolus stated that she did not understand what SQL is.

Mr. Lutz explained that the SQL environment is the database for the backend of many of the applications we run for NYC Health + Hospitals. Dentrix is run on this.

Ms. Bolus asked how often these are upgraded and Mr. Lutz said it was the first time in a few years.

Ms. Bolus stated that none of us understands this like you do, so you have to speak so we understand. She said that EITS is probably the most expensive Committee there is, so you have to understand that when you speak, it means dollars. She reiterated that she was trying to keep track and asked that information be provided in a way so that it is easily understood. She declared that none of us has as much information about IT as you at the end of the table, so please be patient.

Mr. Lutz said absolutely and continued that the money for this upgrade was already in the Microsoft agreement, so there is no additional cost. The upgrade provides better features and functionality.

Ms. Bolus asked who gets to keep it once this is retired.

Dr. Garofalo said some licensing agreements make it "pay to play" if we need their service. Other agreements state we must bring the system down and not use it. It depends on the user agreement.

Ms. Bolus asked how much we lose if we bring a system down.

Dr. Garofalo said we do not lose. We gain because we will not be paying for the license in future years.

Mr. Russo asked if there is data that is lost or needed by us.

Dr. Garofalo said if we need it, we can access it from an archive. If it is just information we need at a later time, we can put it on tape or a backup system that we keep offline until we need it again.

Ms. Bolus asked if we have to do a lot of cutting and pasting to save data.

Dr. Garofalo said no, the information is backed up "as is," so we do not have to do anything else.

Mr. Russo reiterated that we do not lose data and Dr. Garofalo said that was correct.

Mr. Brezenoff asked if there is still enthusiasm for the Radiology rollout.

Dr. Garofalo said there has been a great deal of enthusiasm. He said overall the Concierge service is picking up speed. He said it is a great accomplishment to be able to reach out to a radiologist or vice versa. There is no longer the problem of trying to locate a Radiologist nor taking increased time to do so.

INFORMATION ITEMS:

GO EMR

Pamela Saechow introduced herself and Dr. Rajeeb Khatua, the CMIO of the GO program. She told the committee that we are 15 days from our next go-live at Coney Island. She said in fact tomorrow we are going to do a "soft live event" where we will get all outpatient data transferred to Epic so that come Monday, there will be a subset of patient information in the new system.

Ms. Saechow said she would review the Agenda for this presentation: Updates on Implementation, Optimization/Support, and Strategic outlook for the future.

Ms. Saechow started with the Executive Summary which gives the status updates of the Overall Program and Coney Island (the next rollout on February 25, 2017) via color-coded "flower petals." She said Coney Island is progressing nicely and yesterday we turned two petals from yellow (caution) to green, meaning they are on target. Red means it is a continuing issue we need to watch and work on plans to make better.

Ms. Saechow declared that with the Overall Program two petals are red: Staffing and Soarian Integration. On Top Risks, she explained each. For Staffing, NYC Health + Hospitals chose a top of the line EMR vendor. We remain in a competitive marketplace to find the best people. Since we are a public health system, we try to recruit people with the passion and the heart to serve our patients. We cannot always compete from a salary/compensation perspective but we look for the best talent. We partner with HR to ensure that we recruit the right people with talent.

Ms. Saechow stated the second risk as regulatory site visits. She said there are several operational or regulatory events planned and/or expected to occur within the same time period in February: the Joint Commission is believed to be coming to Queens; CMS visit is expected in Elmhurst; and go-live at Coney Island February 25. She explained that no matter what, we have to be prepared for these visits. We have "SWAT teams" who support these efforts, including giving them the information they request.

Finally, she spoke about Soarian Integration. NYC Health + Hospitals has an EMR called Epic and a financial/revenue system called Soarian. She explained that we have to work on their integration and document the issues we have to address and improve upon.

For Budget Overview, Ms. Saechow thanked the Finance team for working with her team on this. She said we are on budget and on time with our current rollout strategy.

For the Optimization/Support Update section of the presentation, Ms. Saechow talked to GO Excellence and Quality. She explained that we always want to always be improving for the users and our patients. She said the Epic Project Assessment Score provided by the Epic Corporation tracks the trajectory of our overall efforts and you can see that it is steadily going up (positive). Ms. Saechow stated that when she first started it was a 1 and now it is 3, which is where most of Epic's clients range, so we are in good standing.

Ms. Saechow also spoke about Leapfrog's Patient Quality and Safety assessment of NYC Health + Hospitals which shows improvement at Queens in eight categories, status quo for four categories, and a perfect score in nine initiatives. At Elmhurst, there was improvement in seven categories, status quo for five categories, and perfect score in eight initiatives.

Ms. Saechow spoke to the Patient Portal called MyChart which tracks the patient experience. She pointed to the number of medications refilled. She explained that patients used to come to our facilities just to get a refill on a prescription. Now they can do this online. This in turn frees up slots for patients to be seen in departments like the Emergency Room. Using MyChart, patients get email alerts and can go to their

favorite pharmacy. It is seamless, efficient, and they do not have to leave home until the medication is ready for them.

Under Patient Experience, Ms. Saechow explained that we are sharing data with other organizations, both NYC Health + Hospitals and those outside. Sharing data reduces redundancies. For example, if a woman had a mammogram done at Sutter Health or a lab done, she will not have to do it again here, which is great for the patient.

Ms. Saechow spoke to the Strategic section of the presentation. She talked about Pharmacy Standardization and indicated that Victor Cohen was in attendance. Mr. Cohen is leading the pharmacy standardization process across the organization and we are supporting his efforts. We are working not just on standardizing the medications we stock but when and how we administer them and the policies and procedures. This is part of our efforts for best practices for the patient, leveraging technology with our new EMR.

Ms. Saechow said this concluded her presentation.

Ms. Bolus asked how many hospitals have MyChart and Ms. Saechow said MyChart is in Queens and Elmhurst, and Coney Island will get it this month. Ms. Bolus asked how many systems are linked to us with MyChart and Ms. Saechow said 100% of those using Epic have MyChart, including NYU, Mt. Sinai, Montefiore, and Hackensack.

Ms. Bolus asked if they can see our data, is that a HIPAA violation? Ms. Saechow stated no. Patients have to enroll and have to consent, and they have the option to opt out of the service.

Ms. Bolus indicated that maybe NYU might try to take our patients. Ms. Saechow said MyChart is just a view of patient information. There are no services, pricing comparisons or marketing attempts associated with it.

Antonio Martin reiterated that MyChart is just the exchange of information. He said he loves the patient medication refill because we see about 10% of our visits are for refills and now they can do it online, which saves time for patients who need to see us.

Ms. Saechow said she used MyChart with her previous physician with Sutter Health in California and found a physician here with NYC Health + Hospitals. She again signed up for MyChart and can see her information from both Sutter and here. She again articulated that there are no price comparisons associated with the service.

Ms. Bolus reported to the Committee that NYC Health + Hospitals had an incident in which someone got information by pretending to be someone on the phone. Will there be a unique identifier? Several people answered yes.

Mr. Brezenoff said in New York City, patients can use different providers. All of the institutions who use MyChart can instantly share the best information. If you are a Bellevue patient and you end up at Mt. Sinai, they will have access to our files to make the best judgement.

Ms. Bolus asked if we are still centralizing since we have this.

Mr. Martin said yes, we are still going forward. It gives us extra partners. Many of our patients go to many hospitals. Now we can see services they received elsewhere.

Ms. Saechow thanked the Committee.

BUSINESS CONTINUITY (BC)

Glenn Manjorin introduced himself and thanked the Committee for allowing him to speak about Business Continuity (BC). He told the Committee that Business Continuity will be will be the main topic at the next HIMSS conference.

Dr. Garofalo explained that HIMSS is stands for Healthcare Information and Management Systems Society, a not-for-profit organization focused on better health through information technology.

Mr. Manjorin spoke to the presentation EITS Business Continuity Planning. He said he is asked the difference between business continuity (BC) and disaster recovery (DR) and he said BC is much larger. He told the audience that it is a management process that identifies risk, threats and vulnerabilities that could impact an entity's continued operations and provides a framework for building organizational resilience and the capability for an effective response.

Mr. Manjorin stated the objective of Business Continuity Management is to make the entity more resilient to potential threats and allow the entity to resume or continue operations under adverse or abnormal conditions. This is accomplished by the introduction of appropriate resilience strategies to reduce the likelihood and impact of a threat and the development of plans to respond and recover from threats that cannot be controlled or mitigated.

Mr. Manjorin spoke about Business Continuity Management, referring to it as a four legged stool (Incident Management, Business Recovery, Disaster Recovery, and Occupant Emergency Plan). He explained that it starts with Incident Management. When something happens, where does it go? In EITS, it goes to the Enterprise Service Desk and then escalates to the Emergency Operations Center. It could also come from the Mayor's office, so we would work with the Continuity of Operations Program (COOP) group at 125 Worth Street on issues like snow storms and things of that nature.

Mr. Manjorin again addressed the difference between BC and DR. He said DR is involved with hardware. BC is the people and processes: where would we go and what would we do? How would we keep people safe? Where is a rally point if we need to get people out of the building? These are the basics of Business Continuity.

Mr. Manjorin then spoke to "How Do We Plan"? He said there are five steps: Identify, Analyze, Design, Execute, and Measure. For Identify, you look at overall strategic objectives, values and activities; identify stakeholders and services. Find the all the right people in case of an emergency.

He said for Analyze, once you have the Identify people and information, you write the recovery plans. Once that is done, you do the Design work with the people you are working with outside the organization. He gave an example: at Elmhurst, we led a team that worked with the GO team. We spoke with 192 doctors and nurses to train them on BC, including how the BC terminals work and how the reports are done. We also got insight into what they need to make their jobs easier since that is our job as IT.

Mr. Brezenoff asked if he could talk about those meetings with the 192 doctors and nurses.

Mr. Manjorin explained the collection of downtime forms and procedures in case Epic ever went down. He indicated the need to go onsite to explain these with a presentation, including BC terminals that would be used in these situations. For example, he said at Coney Island, there are 45 terminals set up so that doctors and nurses can use them in emergencies. A lot of work took place to figure out which each department needed. However, that work is completed for Coney Island.

Next up, he explained the need to Execute, which is testing. We work with the analysts at Coney Island to make sure our processes will serve the users there.

Ms. Bolus said the verbal information is more enlightening than what is on paper. Can you get us information like your meetings with the 192 people?

Mr. Manjorin stated yes. He then continued with EITS Business Continuity Milestone Recap for 2016: EITS partnered with hospital unit staff to develop and document Downtime Procedures for the Queens/Elmhurst Go-Live. He stated that he was happy to report that since this report was prepared, we completed our work at Coney Island.

Mr. Manjorin said we provided oversight and quality assurance of EITS Business Continuity preparedness. He explained their work with GO EMR application teams to develop end-to-end processes for planned and unplanned outages from pre downtime communications to post downtime reconciliation. This allows for preparing for many possibilities, such as a situation where Epic is up and Soarian is down. His goal is to have the go-to book in every facility to be available online.

Mr. Manjorin told the Committee that we have incident management plans which were executed for Hurricane Matthew. Lessons learned were adapted and communication methods improved so that we will be ready for and have greater success when the next situation arises.

Mr. Manjorin spoke to OEM Updates. SendWordNow testing is completed. This is part of the work performed with the COOP team, which meets monthly and of which he is a member. SendWordNow sends emergency messages to either the entire organization, or a subset of the organization, to tell them something is happening and what to do. It has a mechanism to let us know that people have gotten the message. Work in underway for phase 2.

Mr. Manjorin also stated that they contributed to two (2) Office of Emergency Management (OEM) tabletop exercises. He explained that these are exercises where people literally sit around a table and work on possible scenarios. Each representative talks about what their group would do to deal with the scenario.

Mr. Manjorin reported that they also participate in OEM's Hazardous Material (HAZMAT) Risk Assessment. This was to understand what could possibly happen in buildings such as 55 and 160 Water Street as well as other locations.

Mr. Manjorin told the committee that a Business Impact Analysis with an EITS-wide Business Continuity plan has been completed. We NYC Health + Hospitals now has a database with names, phone numbers, contact information, succession information, etc.

He also reported that we have purchased and installed "Sustainable Planner" BC/DR software from Virtual Corp. which is used by COOP and the Mayor's Office. It provides a database to store your plans and send automatic notifications to the owners of the plans, making sure they test, update and use them.

Mr. Manjorin talked about regulations. He listed the successes: Completion of the Delivery System Reform Incentive Payment (DSRIP) assessment, Nippon Telephone and Telegraph (NTT) Security assessment (for both BC and DR), and Control Objectives for Information and Related Technologies (COBIT 5) Phase 1 assessment.

Mr. Manjorin then spoke to EITS Disaster Recovery Milestone Recap 2016. He said Epic is included in the NYC Health + Hospitals EITS Disaster Recovery Program for Queens, Elmhurst and Coney Island. The Application Impact Analysis (AIA) was completed for Epic Ancillary Applications to determine criticality level

and upstream/downstream processes. Business owners fill out a survey with regards to their needs and plans for DR.

Mr. Manjorin continued by talking about Disaster Recovery Plans (DRP) documented and published and/or in the development stage for Epic Tier 0 and Tier 1 applications. He said Disaster Recovery Integrated Exercises (tests) were conducted prior to, during, and following "Go Live" implementation for Queens and Elmhurst. We successfully failed over Epic and ancillaries to the alternate data center.

Mr. Brezenoff asked to talk about what we learned in this context regarding blood bank.

Mr. Manjorin stated that Kenra Ford, AVP for Clinical Lab Operations, was also involved. He described how blood was sent to NYC Health + Hospitals/Kings County. We had to make sure we had the correct forms. We needed to understand the many jobs were described as this person's responsibility, as well as whose true responsibility it was.

Mr. Brezenoff asked do we have a high degree of assurance from these efforts that blood banks will continue to function.

Dr. Garofalo said yes, we have a high level of assurance, especially with blood bank.

Mr. Brezenoff said it would be useful for the Board to know, from critical area to critical area, what level of assurance we have in these critical areas of the operation with regards to possible events.

Mr. Manjorin said we meet with the business owners and physicians who are involved in these areas. The feedback received has been very positive.

Mr. Brezenoff said I think this is the approach the Board needs to take to assure the continuity of critical services. Can you give some thought to how you could make a report identifying the areas worked on and what can we anticipate in terms of a successful response.

Ms. Bolus stated that Board members do not have the expertise you have. We meet every month or two. It is hard to remember what was reported previously. Board members would like reports.

Dr. Garofalo said we will do that. He said we will pick our Tier 0's – our most critical applications.

Ms. Bolus asked if Mr. Manjorin spoke with the Chief Nurse about plans for nurse education.

Mr. Manjorin stated that they are currently working on that. He said in summation he would like to look ahead to 2017. He reiterated that they continue to drive automation with sustainable planner, update the incident management plan to focus on communications, utilize our alternate site bills, and review the Center for Medicare/Medicaid Service (CMS) regulations that came out last month with emergency preparedness programs. We need to be in compliance by November 2017.

Mr. Manjorin said our purpose for patients and staff is preparedness, communication, and responsiveness. I would like to thank you for your time.

Mr. Brezenoff thanked Mr. Manjorin. He stated that he would like a full briefing for the entire Board on the subject of BC.

Dr. Garofalo stated that they would use blood bank as an example of what would happen in case of a disaster.

There being no further business, the meeting was adjourned 12:55 PM.

CHIEF INFORMATION OFFICER REPORT

Information Technology Committee of the NYC Health + Hospitals Board of Directors – March 16, 2017 @10:00AM

Thank you and good morning.

For today's meeting, IT Enterprise Services will be presenting two (2) action items for the Committee's consideration: the purchase of hardware, software and services for the OneCity Health Patient Engagement and Contact Center and a contract amendment to a current McKesson Technologies agreement for the implementation of a consolidated enterprise-wide diagnostic viewer platform. Our information item is an update to the Business Continuity presentation that was given at last month's IT Committee meeting. However, before we begin, I would also like to provide the committee members with the following brief updates:

EMR GO Program Update:

On Saturday morning, February 25th, the EMR GO program went live at Coney Island Hospital and its four community health centers. It was an anticlimactic go-live, with the implementation going as smoothly as anyone could have hoped for. Coney Island now joins NYC Health + Hospitals/Queens, NYC Health + Hospitals/Elmhurst, twenty (20) community-based centers in Queens and our Home Health Agency on the Epic platform.

Ed Marx, CIO and Senior Vice President of the Advisory Board and the EMR Go team have done a superb job in getting the Coney Island staff ready and primed for our Epic go-live. I also want to acknowledge the leadership of Tony Rajkumar and his team at Coney Island Hospital for making this implementation a major success. Finally, I'd like to thank the entire Enterprise IT Services staff who were active partners with Tony, the Coney Island staff as well as the EMR GO Team in this achievement as well as personifying the essence of EITS in demonstrating what team support and collaboration is all about.

Radiology Integration Program Update:

The Radiology Integration program was presented to the committee members at the November 3, 2016 meeting. The program, using McKesson Technologies software, will allow for diagnostic images to be read at any site within NYC Health + Hospitals using a single platform and generating transparent performance metrics in such a way that service, quality and productivity are improved.

The rollout of the program began in November 2016, at Harlem and now includes Metropolitan, Coney Island and Lincoln hospitals. Expansion work to the remaining NYC Health + Hospital sites continues. The program is expanding the use of concierge services for all Radiologists at Harlem and rolling it out to pilot users at Metropolitan and Lincoln. Business Intelligence (BI) & Data Analytics solutions are live at Harlem; the Steering Committee received a demo and will be expanding BI & Data Analytics to Metropolitan Hospital next. A Peer Review Quality Review program has started to be piloted at Lincoln Hospital. Historical data migration is in progress for Coney Island, Woodhull, Queens and Elmhurst hospitals. We anticipate that this project will save NYC Health + Hospitals over $3 million per year.

The Radiology Integration Program is a prime example of how IT contributes to transforming the patient care experience at NYC Health + Hospitals.

Enterprise Resource Planning (Project Evolve) Update:

I wanted to provide the committee with an update on the status of our Enterprise Resource Planning (Project Evolve) project. The project continues to be on budget and on time with go-live for Wave I sites targeted for July 1, 2017. To date, we have successfully completed round one of our System and Integration testing. Presently, we are completing round two of system and integration testing which is testing third party interfaces as well as security. We are 90% complete on enhancements, third party

interfaces and data extracts (also known as conversions). The learning curriculum for training staff on the ERP system is currently under development, with the learning plan and roll-out being finalized. In addition, both the Communications and Change Management teams are up and running. A webinar hosted by project leads Elizabeth Guzman from Finance, Jun Amora from Supply Chain and Janet Karageozian from EITS detailing the project status and updates to the users occurred on January 24, 2017.

As mentioned earlier, this project is on target for a July 1st go-live with the following facilities and sites who make up Wave I of the roll-out: Queens and Lincoln Hospitals, Central Office, Correctional Health and MetroPlus.

I will provide the committee with additional updates as we get closer to the July 1st go-live date.

PeopleSoft Human Capital Management (HCM) and Enterprise Learning Management (ELM) Upgrade:

A successful upgrade of the PeopleSoft Human Capital Management (HCM) and Enterprise Learning Management (ELM) system tools was completed on March 6, 2017. This upgrade is in preparation for connecting with the new Financial and Supply Chain systems. With the upgrade, a new user interface called "Fluid" was rolled out. One of the major benefits of Fluid is that it will allow users to access PeopleSoft on their mobile devices (i.e., Smart Phones, Tablets, etc.). This technology uses tiles to navigate through the system rather than the conventional dropdown menus. By upgrading our PeopleSoft tools to the most recent version 8.55, we are continuing to ensure regulatory compliance, maintain peak application performance and keep the NYC Health + Hospitals PeopleSoft environment current and up to date.

This completes my report today. Thank you.

RESOLUTION

Authorizing the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to execute contracts for the purchase of hardware, software, and services from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $10,000,000 for a one year period.

WHEREAS, NYC Health + Hospitals was awarded a New York State capital grant through the Delivery System Reform Incentive Program ("DSRIP"), in the amount of $19.4 million for the construction and outfitting of OneCity Health Patient Engagement and Contact Center (the "Contact Center"); and

WHEREAS, of the $19.4 million grant, $10 million was earmarked by New York State to design, install and deploy the technology infrastructure required to support the Contact Center; and

WHEREAS, contractors able to provide the needed goods and services to the System via Third Party Contract(s) made available through the Federal General Services Administration, the New York State Office of General Services and through various group purchasing organizations ("Third Party Contracts"); and

WHEREAS, the Corporation will solicit proposals from these contractors, both manufacturers and authorized resellers, on an on-going basis via Third Party Contract(s); and

WHEREAS, Third Party Contracts offer discounted pricing compared to the market price for such equipment, and having been awarded by bid and requests for proposals, no further competitive process is required to procure the needed goods and services; and

WHEREAS, the overall responsibility for managing and monitoring the agreement(s) shall be under the Senior Vice President/Corporate Chief Information Officer.

NOW, THEREFORE, be it:

RESOLVED, THAT THE NYC Health + Hospitals be and hereby is authorized to purchase hardware, software, and services from various vendors on an on-going basis via Third Party Contract(s) in an amount not to exceed $10,000,000 for a one year period.

Executive Summary –
Purchases for OneCity Health Patient Engagement and Contact Center Hardware, Software, and Services via Third Party Contracts

The accompanying resolution requests approval to purchase hardware, software and associated services from various vendors via Third Party Contract(s) in an amount not to exceed $10 million for the OneCity Health Patient Engagement and Contact Center (the "Contact Center"). This purchase is included in the DSRIP funding awarded to NYC Health + Hospitals by New York State for the Contact Center.

New York City Health + Hospitals was awarded a capital grant of $19.4 million for the construction and outfitting of the Contract Center, of which $10 million was earmarked to develop the technology infrastructure required to support the DSRIP program.

The Contact Center aims to improve access and care coordination through a single comprehensive Contact Center to cover scheduling appointments, appointment reminders, post ED discharge follow-ups, and 24-hour access to a triage nurse to answer medical questions, covering every practice with NYC Health + Hospitals. The Contact Center will be staffed 24 hours a day, seven days a week, and provide services in all languages to patients in the community. The Contact Center will be the core to building relationships with patients of OneCity Health and the greater community, and offer a one-stop shopping experience for a wide range of medical services, with a focus on outpatient, primary care.

In order to implement a program that successfully meets DSRIP goals, NYC Health + Hospitals needs to design, install and implement an IT technology platform and infrastructure to enable a single comprehensive Contact Center. EITS will implement the Healthcare Intelligent Contact Center solution utilizing Cisco Unified Communications along with the Cisco Contact Center application to provide a robust and agent friendly communications platform.

EITS will procure the licenses necessary for Contact Center agent set up, including, interactive desktop (Epic and Soarian Screenpops); voice; video; e-mail; chat; co-browsing; call recording, knowledge management; and speech recognition functions. The hardware purchases will be for equipment required for the enterprise computer and networking infrastructure to support the Contact Center.

EITS will procure services for the design and architecture of the technology platform; the configuration of new computer domains, and the installation, configuration and deployment of the encrypted voice recording solution, knowledge management platform and speech enabled workflows and languages., as well as the configuration and integration to Epic EMR and Soarian billing.

Under this request, multiple solicitations will be conducted from vendors available through the Federal General Services Administration, the New York State Office of General Services and through various group purchasing organizations ("Third Party Contracts") to procure licenses, hardware and services. Enterprise Information Technology Services will solicit manufacturers and authorized resellers via various Third Party Contracts. These contracts allow the Corporation to receive discounts beyond what is available on the open market. For example, a recent purchase of EMC storage equipment realized a 50% discount off of the list price. A purchase order will be issued to the lowest responsive bidder for each purchase.

NYC HEALTH+ HOSPITALS

OneCity Health Patient Engagement and Contact Center

IT Committee Meeting

March 16, 2017

NYC HEALTH+ HOSPITALS

What is the Contact Center

- Contact Center will be the core to building relationships with patients of OneCity Health and the greater community
- $19.4 million capital grant applied for and awarded through the Delivery System Reform Incentive Program (DSRIP) initiative.
  - $10 million was allocated to the technology
- Offering a "one-stop shopping" experience for a wide range of medical services with a focus on outpatient and primary care
- Single comprehensive 24 hour and 7 days a week multi-lingual service to provide all patients in the community:
  - Appointment Scheduling and Reminders
  - Post ED discharge follow-ups
  - 24-hour access to a triage nurse for medical questions

NYC HEALTH+ HOSPITALS

The Need

- In order to implement the Contact Center IT needs to design, install and implement a technology platform to meet the requirements. This includes:
  - Interactive desktop (Soarian, Epic interaction/integration)
  - Voice, video and instant messaging
  - Call-Recording
  - Knowledge Management
  - Speech Recognition
- The above would be funded through the $10 million from the DSRIP grant.
- Procurement would cover technology, licensing and services required to implement and support the solution. These items would potentially be provided by multiple vendors that would solicited through the standard NYC Health + Hospitals procurement process.

NYC HEALTH+ HOSPITALS

Questions?

RESOLUTION

Authorizing the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to negotiate and execute a contract amendment with McKesson Technologies Inc. ("McKesson") to obtain the licenses, services, training and maintenance required to implement a consolidated diagnostic viewer in conjunction with the Radiology Integration and Practice Management Services Agreement made with McKesson in February 2016 (the "Agreement") for a period two years (the remaining Initial Term of the Agreement) with two, one-year options to renew, exercisable solely by NYC Health + Hospitals, in an additional amount of $6,668,270.94 (includes a 10% contingency of $606,206.45) for a total increased contract amount not to exceed $23,353,125.94.

WHEREAS, under the Agreement McKesson is to provide radiology integration and practice management services for a period of three years with two, one-year options to renew, exercisable solely by NYC Health + Hospitals, in an amount not to exceed $16,684,855; and

WHEREAS, the Agreement included an option for NYC Health + Hospitals to license McKesson Radiology Software including third-party software and related services to include implementation, training and maintenance for a consolidated diagnostic viewer platform; and

WHEREAS, NYC Health + Hospitals determined that it is in the best interests of the System to exercise the option and implement an enterprise-wide diagnostic viewer, thereby increasing the total amount of the Agreement to $23,353,125.94; and

WHEREAS, the proposal meets all of NYC Health + Hospitals' technological and regulatory security requirements, and uptime performance expectations; and

WHEREAS, responsibility for monitoring the contract shall be under the Senior Vice President/Chief Medical Officer and Senior Vice President/Chief Information Officer.

NOW, THEREFORE, be it

RESOLVED, that the New York City Health and Hospitals Corporation be and hereby is authorized to negotiate and execute a contract amendment with McKesson Technologies Inc. ("McKesson") to obtain the licenses, services, training and maintenance required to implement a consolidated diagnostic viewer in conjunction with the Radiology Integration and Practice Management Services Agreement made with McKesson in February 2016 (the "Agreement") for a period two years (the remaining Initial Term of the Agreement) with two, one-year options to renew, exercisable solely by NYC Health + Hospitals, in an additional amount of $6,668,270.94 (includes a 10% contingency of $606,206.45) for a total increased contract amount not to exceed $23,353,125.94.

Executive Summary
Radiology Integration and Practice Management Services

In February 2016, the Board of Directors approved a contract between NYC Health + Hospitals and McKesson Technologies Inc. ("McKesson") to provide radiology integration and practice management services for a three year term, with two, one-year options to renew, exercisable solely by NYC Health + Hospitals, in an amount not to exceed $16,684,855. The agreement with McKesson resulted from a Request for Proposals ("RFP") that was issued on August 14, 2015. In response to the RFP, eight proposals were received and met the minimum qualification criteria. A selection committee composed of senior leadership, radiologist and IT SME's evaluated each vendor using criteria specified in the RFP. After multiple rounds of scoring a short list was created with four vendors and subsequently from that list the Selection Committee narrowed the selection down to two finalists which were McKesson Technologies Inc. and Imaging Advantage. Ultimately McKesson offered the best overall solution and was selected as the vendor to provide radiology integration technology solutions and practice management services for NYC Health + Hospitals.

Pursuant to the terms of the RFP and the proposals received from the various submitting vendors, the contract contained an option (amendment) to license McKesson Radiology Software including additional third-party software and related services for the implementation, training and maintenance in regards to enterprise diagnostic viewers. At this time, we are seeking approval of an amendment to exercise this option and to increase the spending authority of the Agreement in an amount not to exceed $6,668,270.94 (includes10% contingency) for the remainder of the term, including optional renewal periods exercisable solely by NYC Health + Hospitals for additional expanded services. The new contract total will be increased from $16,684,855 to $23,353,125.94.

Under the contract, McKesson is implementing a standard enterprise wide radiology diagnostic management solution to drive patient outcome, quality of care, and efficiency improvements by establishing radiology network connectivity across the entire NYC Health + Hospitals system, enabling a cross-facility radiology imaging sharing protocol, optimizing radiology practice management, and generating transparent performance metrics in such a way that services, quality and productivity are improved. The program will also support operational expansion via an open platform that would allow NYC Health + Hospitals' facilities to read the scans of providers outside the system.

Under this Amendment, McKesson will provide an enterprise diagnostic viewer that will consolidate eleven siloes of diagnostics viewers (PACS) into an enterprise diagnostic viewer standard across all the facilities, eliminating independent separate and/or end of life systems. This consolidation will, for the radiologist, help enhance and simplify radiology cross-facilities interpretation of images and image management workflows and reduce the need for complex connections between multiple systems. This standardization will further enhance quality and delivery of care, support enterprise clinical standards, best practices, improve the timeliness of interpretation increasing abnormal and critical result reporting processes. Additionally, the single platform will allow innovative new techniques for breast cancer screening leveraging 3D mammography images of the breast (formally known as digital breast tomosynthesis – DBT) and orthopedic digital pre-operative planning and templating software (Orthoview) as two examples.

NYC Health + Hospitals will realize substantial savings by reducing the server footprint, eliminating duplicate hardware needs, redundant applications and related resources thus resulting in a more efficient support model. Once the enterprise platform is fully implemented, NYC Health +Hospitals will have reduced overall cost of maintaining additional maintenance agreements with Sectra and Agfa for a savings of approximately ten million dollars over a three year period.

The deployment timeline is projected to take 14 months from execution of the contract amendment. Hospital go-lives will be grouped into four (4) core phases which will be rolled out in a facility-phased approach allowing the system to be implemented without downtime of legacy systems, allowing for a smooth transition. The deployment grouping will be aligned with the overall radiology integration program model to support a seamless transition and will be incorporated into the continuous improvement phases.

McKesson's EEO has been approved; Vendex is pending.

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TO: Thomas Lal
Strategic Sourcing/Supply Chain
Division of Materials Management

FROM: Manasses C. Williams

DATE: November 6, 2015

SUBJECT: EEO CONTRACT COMPLIANCE REVIEW AND EVALUATION

The proposed contractor/consultant, **McKesson Technologies Inc.** has submitted to the Affirmative Action Office a completed Contract Compliance Questionnaire and the appropriate EEO documents. This company is a:

[ ] Minority Business Enterprise [ ] Woman Business Enterprise [X] Non-M/WBE

Project Location(s): Corporate-wide

Contract Number: _____ Project: Enterprise Imaging Solution and Professional Services

Submitted by: Division of Materials Management

EEO STATUS:

1. [X] Approved
2. [ ] Approved with follow-up review and monitoring
3. [ ] Not approved
4. [ ] Approved Conditionally - Subject to EEO Committee Review

COMMENTS:

MCW/srf

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Radiology Integration and Practice Management Contract with McKesson Technologies Incorporated

McKesson Radiology Software and Services

Sal Guido, SVP and CIO, Information Technologies Services (EITS).
Dr. Alfred Garofalo, Sr. AVP, EITS, Clinical Information Services.

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Radiology Transformation

- Step One of the Radiology Transformation project positioned H+H with the ability to seamlessly share radiographic studies, in real-time, across all our facilities. For the first time both radiologist and care-givers are now capable of sharing a study instantaneous throughout care of the patient at any of our facilities. H+H also introduced a streamlined communication platform for radiologist and providers to be linked together quickly when discussions of emergent nature are crucial in regards to the patient studies and care. The contract that enabled this transformation was signed in February, 2016 in an amount not to exceed $16,684,855, inclusive of all costs and expenses

- Step Two of the Radiology transformation brings together all of the legacy radiographic modalities and associated vendors (Agfa and Sectra) into one single McKesson diagnostic viewing platform. The McKesson platform will enable the radiologist to utilize a single viewer instead of accessing the McKesson system for the current images and either Agfa or Sectra for the archived images. An option to install this technology was part of the original February 2016 contract in regards to enterprise diagnostic viewers.

- This new technology will broaden our capabilities to extend into three dimensional viewing. Surgical planning especially in trauma allow what-if scenarios and 3D printing to reveal outcomes before procedures are even performed and with Breast Tomosynthesis, specialized breast radiologists would be able to see through layers of tissue and examine areas of concern from all angles.

- At this time, we are seeking approval of that amendment to exercise this option and to increase the spending authority of the Agreement in an amount not to exceed $6,668,270.94 (includes10% contingency) for the remainder of the term, including optional renewal periods exercisable solely by NYC Health + Hospitals for additional expanded services. The new contract total will be increased from $16,684,855 to $23,353,125.94

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Financial Analysis

Current Spend – McKesson, Agfa and Sectra

Description	YR1	YR2	YR3	Total Spend
Support and Maintenance	$9,990,067	$11,588,010	$6,241,993	$27,820,070

Future Spend – McKesson, Agfa and Sectra

Description	YR1	YR2	YR3	Total Spend
Support and Maintenance	$9,990,067	$7,588,010	$741,993	$18,070,070

- Includes cost to upgrade legacy vendor platforms + recurring maintenance
- Estimated cost savings over three years to be 10M

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EITS Business Continuity Planning

Glenn Manjorin - Director of IT – Business Continuity Planning

March 16, 2017

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- Business Continuity Management (BCM) is an ongoing process supported by senior management and resources that identifies risk, threats and vulnerabilities that could impact an entity's continued operations.

- The objective is to provide a framework for building organizational resilience and the capability for an effective response to allow the entity to resume or continue operations under adverse or abnormal conditions.

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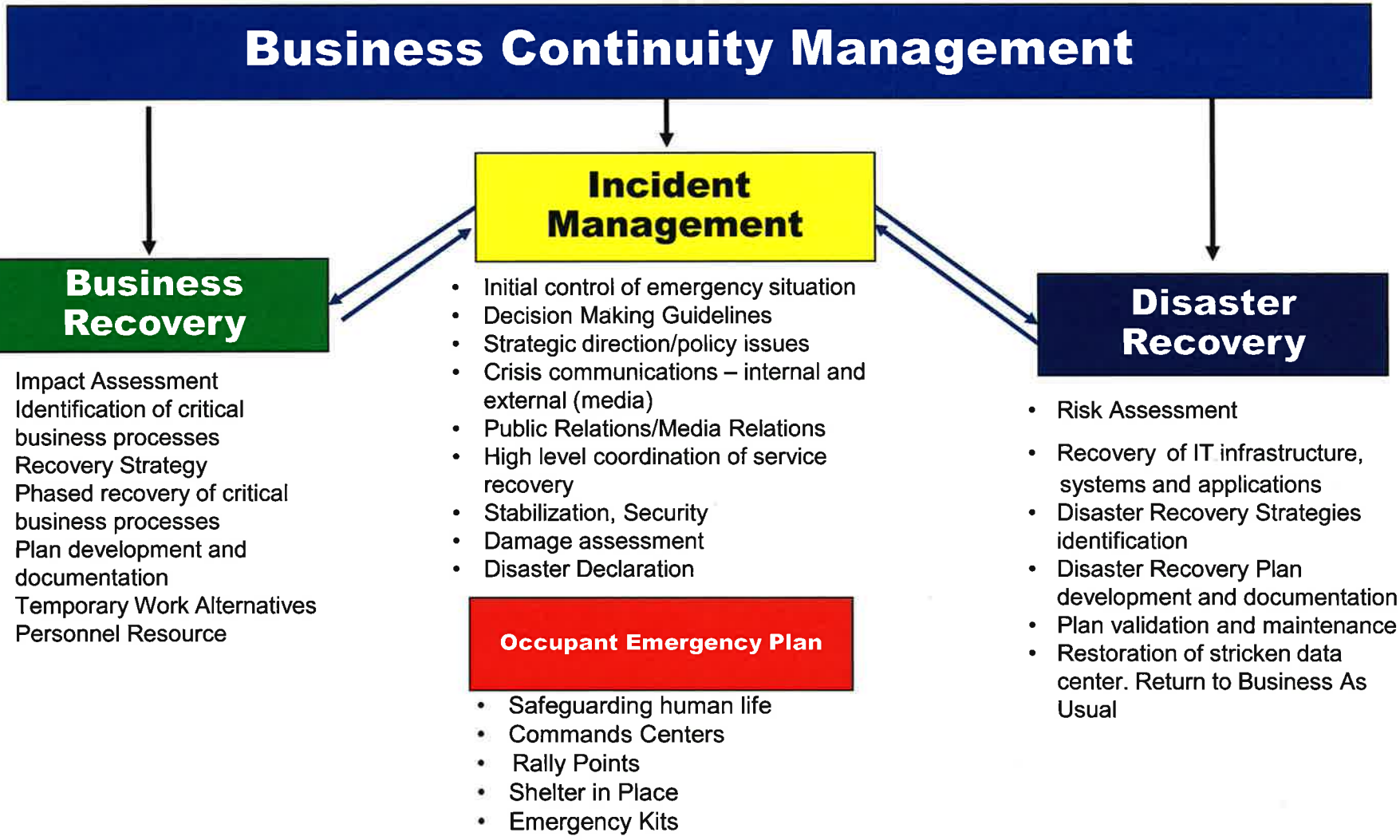
Business Continuity Management (BCM) Program
Critical Planning Components



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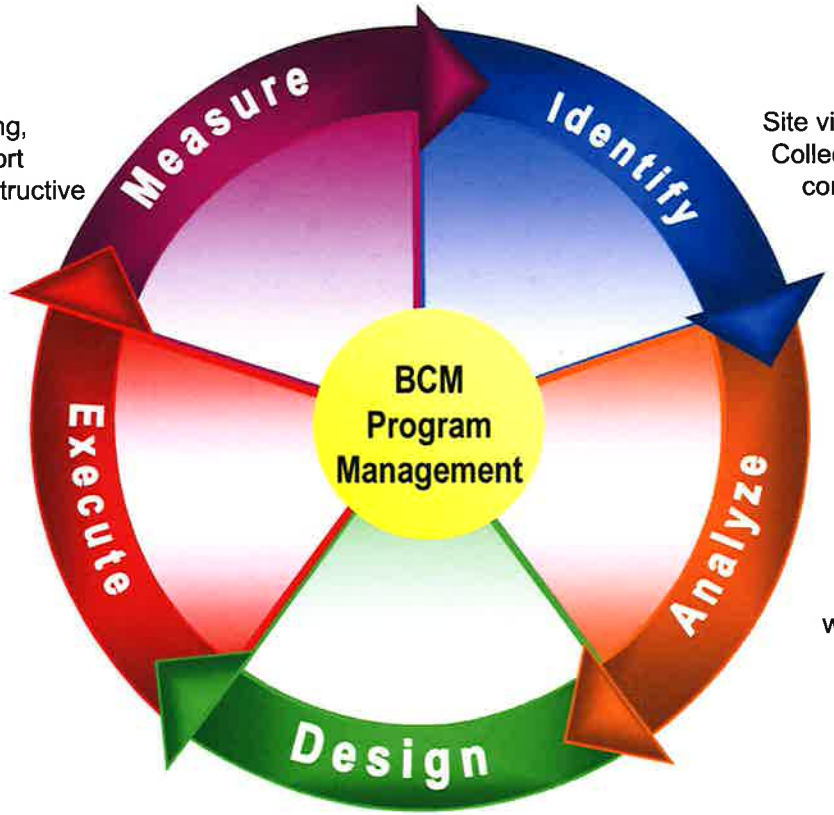
How Do We Plan? (Blood Bank)

Measure results through exercising, maintenance and training. Support continuous improvement through constructive feedback.



Site visits made to determine business needs. Collected forms and processes. Established communication with committees (in this example, the lab) for follow up.

Develop with Facility staff the Integrated Downtime Procedures Guide as part of the GO-TO book.

Worked with EMR analyst team to understand back office work. Identify business gaps and work arounds to Patient Care if HCLL, EMR, CERNER were to be at different stages of outages.

Design appropriate levels of recovery strategies that provide practical, cost-effective solutions to continue operations; implemented software to hold knowledge base (Downtime Forms and Procedures)

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SUSTAINABLE PLANNER®

- Easy to use standardized format, compliant with NYC standards
- Automated Real time creation of Go-To books
- Auditable Repository of Processes and Forms
- Flexible configuration for forms and Downtime Procedures
- Provide input to the Enterprise Vision of standard procedures

Following Industry Best Practices for Information Technology, EITS has both Business Continuity Documentation and Operating Documentation.

Health and Hospitals have standardized on leading platforms from Sustainable Planner and BMC

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Blood Bank Downtime Procedures

Procedures include Business Continuity when;

Scenario 1	***HCLL*** 🔴	***EMR*** 🟢	***CERNER*** 🟢
Scenario 2	***HCLL*** 🟢	***EMR*** 🔴	***CERNER*** 🟢
Scenario 3	***HCLL*** 🟢	***EMR*** 🟢	***CERNER*** 🔴
Scenario 4	***HCLL*** 🔴	***EMR*** 🔴	***CERNER*** 🔴

System Unavailable	Order Type	Place Order	Receiving Orders	Processing	Results	Reconciliation after Downtime
1. HCLL (Epic and Cerner are available)	***Tests***	• Providers continue to place orders in Epic. • Review the HHC Blood Bank Incomplete Work List in Epic to review outstanding Blood Bank tests.	• A normal Cerner label will be on the specimen. • Do not in-lab specimen in Cerner. • Write required data in the Blood Bank Downtime Worksheet. • Orders will queue up in Cerner until HCLL is restored.	• Instrument processing or manual processing, as per SOP. • Do not export results from instrument.	• Write results into the Blood Bank Downtime Worksheet. • Place calls for critical results (as per SOP).	When HCLL is back up: 1. In-lab the specimen in Cerner. 2. In HCLL modify the Specimen Accessioned Date/Time (do not accept default) in the O/S screen in HCLL. 3. Change the specimen status from "T" to "I" as normal and save the changes. 4. Export results from lab instruments or manually enter from the Blood Bank Downtime Worksheet and verify in HCLL. 5. Check Epic Chart Review to ensure that these posted correctly.
	Products	• Providers continue to place orders in Epic. • Review the HHC Blood Bank Incomplete Work List in Epic to review outstanding Blood Bank product orders.	• Orders will print as usual in the Blood Bank • Write required data in the Downtime Cross Match and Thawed Unit Log. • Check APBC for patient history • Check Epic in-dated specimen.	• Manually check product inventory • Determine if the patient has a current type and screen. • Manual crossmatch against existing specimen, as per SOP • If product requires modification, write on label (new expiration date/time, thawed product) • Write out Transfusion Slip label and record product used in the Downtime Cross Match and Thawed Unit Log	• A normal pick-up form arrives at window, clock-in as per SOP. • Record the pickup in the Downtime Issue & Returned Unit Log. • Issue product as per SOP.	When HCLL is back up: 1. Orders placed in Epic will appear in HCLL (O/S screen). 2. When HCLL comes back up, ensure that all results (tests and crossmatch) that are in Downtime Cross Match and Thawed Unit Log are entered into HCLL. 3. Post issue products by adjusting the time in HCLL that the product was issued. 4. Check EPIC Chart Review to ensure that these post correctly.

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Business Continuity Status

Tier	Application	Downtime Procedures
1	Epic	Y
1	Q-CPR	Y
1	Ensemble	Y
1	Cerner Millennium	Y
1	Soarian	Y
1	HCLL	Y
1	OpenLink	Y
1	Unity	Y
1	Bed Tracking	Y
1	Allscripts	Y
1	HMED	Y
1	Pyxis	Y
1	NantHealth	Y

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Benefits of a Business Continuity Program

- Identify Essential Functions for Health Care Delivery
- Plan for Continuity of Operations to insure seamless patient care
- Maintain Access to Resources during an Emergency
- Develop Strategies to Protect Health Care Information Systems and Networks
- Provide for Employee Safety
- Meet stricter regulatory requirements

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Questions?