Briefing Document on CHCANYS' Center for Primary Care Informatics
April, 2015

BACKGROUND
New models of care delivery and payment require primary care providers, including federally qualified health centers (FQHCs), to make significant improvements in patient access to care, quality of care, patient and population health outcomes, and cost containment. Health care providers, localities, and the State, among others, must target limited resources to address high-priority gaps and yield the greatest results. Having ongoing access to in-depth and high-quality data and advanced analytical support is critical to achieving these goals.

In response, CHCANYS has launched the New York State Center for Primary Care Informatics (CPCI) to support the targeting, design, and implementation of improvements; health care system planning; and policy development. The CPCI has three major components:

1. A Statewide Data Warehouse

2. Data Analysis and Support

3. Quality Improvement Technical Assistance

STATEWIDE DATA WAREHOUSE
As a central CPCI strategy, CHCANYS has implemented a statewide data warehouse with extensive analytic and reporting functionality. The CPCI data warehouse builds upon the electronic health records that all New York State FQHCs have adopted, drawing clinical, operational and financial data from the EHRs and practice management systems nightly. It organizes and presents data to give FQHCs the information they need to allocate resources to maximize their improvement efforts, and enables the sharing of data across health centers to benchmark performance and facilitate collaborative improvement initiatives. All three components of the CPCI listed above provide intensive support to guide and drive significant improvements in patient access to care, quality of care, patient and population health outcomes, and cost containment.

The software platform for the CPCI data warehouse was created specifically for FQHCs and is licensed from Azara Healthcare. The Azara product is in use in 17 states in over 125 FQHCs.

In just 2 years, 35 of New York's 63 FQHCs have been connected to the CPCI data warehouse. When all health centers are connected, the CPCI data warehouse will include annual data on 1.7 million patients with over 8 million visits at 580 FQHC center sites.

The data warehouse automatically produces standard reports on over **120 clinical quality and key performance indicators.** The data warehouse also enables FQHCs to drill down to view data at the health center, health center site, provider and patient level (depending on level of access granted to a given user). (For a sample of measures see the Appendix.) It also allows users to filter data by a standard list of parameters to assess patterns in their data, including payer class, service line, and race and ethnicity. Data are shown in easy-to-understand visual charts and tables. Clinical quality measures are calculated based on widely accepted standards (e.g. NQF, CMS, HEDIS, and New York State). The product is in continuous development to meet the changing needs and reporting requirements of its user community. For example, the April, 2014 release included 15 New York State HEDIS measures for the first time as well as 25 newly-certified Meaningful Use measures eligible for submission as part of provider incentive payment attestations. In winter of 2015, 7 HIV-QUAL measures were added, and another 17 are in progress with funding support from the New York State AIDS Institute.16 Financial & Operational measures are also available.

The CPCI data warehouse includes **50 additional reports**, including:

- 11 patient registries
- 14 Meaningful Use reports
- 4 NCQA Patient-Centered Medical Home-related reports
- 8 tables required for the federal Uniform Data System (UDS) report
- 8 types of individual provider report cards
- 2 reports specific to CHCANYS grant-funded initiatives
- Financial and operational reports

CHCANYS will also add external data to the CPCI data warehouse (e.g., payer claims data relating to services rendered outside the health center, data to assess workforce shortages and unmet health care needs). The additional data will support more robust analyses of quality and outcomes in relation to costs as well as planning activities related to primary care capacity and workforce development.

The initiative benefits the FQHCs, CHCANYS, and the larger health care system in efforts to improve the quality and cost-effectiveness of patient care by:

- Supporting the identification of needs and opportunities across the State to improve quality, outcomes, and costs and allowing the targeting of resources to areas of greatest need and opportunity.

- Supporting FQHCs' leadership and participation in new integrated delivery models, including New York's *Delivery System Reform Incentive Payments* (*DSRIP*) Performing Provider Systems, Accountable Care Organizations, and *independent practice associations* (*IPAs*).

- Enabling FQHCs that do not have the in-house expertise or resources to compile and use their data to track their performance and implement quality improvements, as follows:
  - Users at participating FQHCs can access and view the data they are authorized to view via the web.
  - CHCANYS will help health centers understand the data, implement improvements, *and* teach health centers how to do it themselves.

- Supporting patient, panel, and population management at the health center and provider/care team level, including:
  - Patient registry reports that list patients in specific chronic disease or preventive care categories and identify actions that need to occur in order to meet quality goals. For example, the diabetes registry report provides a list of patients who have not had their A1c test. In addition to the date of their last test, the list includes a phone number so teams can call patients to schedule a test. For a screenshot of the Obstetrical Registry see the Appendix.
  - Patient visit planning report that lists all patients scheduled to see a provider or team for a single day. It is organized by provider and then by patient scheduled appointment time to make it easier for care teams and providers to review alerts (20 are available), identify care gaps and prepare in advance of the patient's visit. For a sample of the Patient Visit Planning report see the Appendix.
  - Risk and care management reports that integrate external payer claims data to identify high-cost, high-risk patients for focused care management services. Payer claims data provides the information on use of hospital inpatient and emergency services that can be used to calculate risk scores for each patient. For a mock-up of this report, which is in development, see the Appendix.
  - Referral management reports that list open referrals for services outside the FQHC, by type of referral and length of time open, to assist FQHCs in the difficult task of closing referrals to ensure that patients receive the

specialty services they need and the data is entered into the electronic health record in a manner that allows the FQHC to get credit for the service in various clinical quality measures.

- Enabling FQHCs to benchmark their performance with that of their peers and against national benchmarks

- Producing standard measures and reports[1] required by HRSA, national Patient-Centered Medical Home recognition, EHR Incentive Program Meaningful Use documentation, Health Home reporting, and others.

There is a one-time cost associated with connecting each FQHC to the CPCI data warehouse and validating the data that is transmitted. On an ongoing basis, FQHCs pay a quarterly subscription fee based on the number of primary care patient encounters. This subscription allows health centers to access their own data, run automatic and standardized reports, and compare their performance with that of their peer health centers. CHCANYS has secured grant funding to cover the one-time connection costs and to subsidize a portion of the subscription costs. CHCANYS efforts to secure other funding will be ongoing.

DATA ANALYSIS AND SUPPORT
Under the CPCI, CHCANYS has developed advanced analytic capacity to conduct customized analyses to support FQHCs, the State, and other health care stakeholders in policy, planning, and program initiatives.

For example, CHCANYS Data Support Team has developed a variety of tools using publicly available data from state and federal sources to assist FQHCs in their applications for federal funding and their participation in major New York State initiatives, including the DSRIP program. The Data Support Team has also provided customized data analyses for FQHCs, on request, in connection with these initiatives. This analytic support complements tools available to the FQHCs through the CPCI data warehouse.

The Data Support Team has also licensed the Salient tools for accessing Medicaid claims data, and is exploring uses of this data in relation to the clinical data in the CPCI data warehouse.

QUALITY IMPROVEMENT TECHNICAL ASSISTANCE
In connection with the CPCI data warehouse, CHCANYS has developed an accompanying program of related technical assistance to support data quality, clinical quality improvement, health center planning, advocacy, and fund development statewide. CPCI provides technical assistance tailored to the specific needs of each health center and combines a variety of modalities—from the economies of scale offered by distance learning, to one-to-one coaching via telephone, to the higher touch in-person assistance needed by some health centers.

Quality improvement (QI) activities have generally focused on improving workflow, data flow and clinical processes around specific chronic diseases, including diabetes, hypertension, and other cardiovascular conditions; cancer; obesity; depression; HIV and hepatitis C. CHCANYS Quality Improvement Specialists provide instruction on QI techniques and tools; bring in external content experts to speak with the FQHCs; coach health centers through the planning, execution and evaluation of their QI activities; and facilitate the sharing of best practices and lessons learned among FQHCs. The CPCI Warehouse plays an integral role in all of CHCANYS QI initiatives, providing tools for measurement and feedback to the FQHC providers; benchmarking performance against each other and established targets; and supporting care planning, care coordination and patient outreach.

Examples of funded technical assistance programs include a partnership with New York State Department of Health's Bureau of Chronic Disease Control and IPRO, New York's Quality Improvement Organization, in the CDC-funded Innovative Demonstration Project to Advance Population-Based Cancer Screening and Treatment. This five-year program is funding technical assistance to improve rates of screening and follow-up for breast, cervical, and colorectal cancer among FQHC patients statewide. All of New York State's FQHCs are eligible for participation in this program. Other quality improvement programs are currently conducted through CHCANYS Health Center Controlled Network, a program funded by the Health Resources Services Administration of the federal Department of Health and Human Services.34 FQHCs are participating in this program.

For more information, please contact:

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[1] The vendor will automatically update reports as the reporting requirements change.

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Appendix: A

Sample of Clinical Measures in the CPCI Data Warehouse
(All calculated using nationally accepted standards)

- Controlling High Blood Pressure

- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents –BMI

- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents – Counseling for Nutrition

- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents– Counseling for Physical Activity

- Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

- Breast Cancer Screening

- Cervical Cancer Screening

- Chlamydia Screening for Women

- Colorectal Cancer Screening

- Use of Appropriate Medications for Asthma

- Childhood Immunization Status

- Preventive Care and Screening: Influenza Immunization

- Pneumonia Vaccination Status for Older Adults

- Diabetes: Foot Exam

- Diabetes: A1c>9

- Diabetes: Hemoglobin A1c Test for Pediatric Patients

- Diabetes: Urine Protein Screening

- Diabetes: Low Density Lipoprotein (LDL) Management

- Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

- Ischemic Vascular Disease (IVD): Complete Lipid Panel

- Ischemic Vascular Disease(IVD): LDL Control

- HIV/AIDS: Medical Visit

- Preventive Care and Screening: Body Mass Index (BMI)Screening and Follow-Up: >=65 Years

- Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up: 18–64 Years

- Hypertension: Improvement in Blood Pressure

- Primary Care Prevention Intervention as Offered by Primary Care Providers, including Dentist

- Children Who Have Dental Decay or Cavities

• Diabetes: Eye Exam	• HIV/AIDS: RNA Control for Patients with HIV

Clinical Registry of Obstetrical Patients

Registry & Preventative Care Alerts ordered by provider and appointment time, in one report.

| | Home | Dashboards | Reports | Measures | Help | Admin |

Visit Planning

Show/Hide Filters | Report Issue | Add to Favorites

Period
- ◯ Encounter
- ◉ Appointment

Start Date 1/23/2012
End Date 1/24/2012

Centers
All Centers
Florence Avenue Community Health Centers
Lawn Court Community Health Centers
Locust Avenue Community Health Centers
Morgan Avenue Community Health Centers

Providers
All Providers
Abraham Hays
Adan Acosta
Adeline Waller
Adolph Acevedo
Ahmed Acevedo
Ahmed Acevedo
Aida Acevedo
Aileen Acosta
Alana Acosta

Locations
All Locations
Aster Court Health Center
Atlantic Avenue Health Center
Avenue H Health Center
Avenue H Health Center
Avenue Z Health Center
Benson Avenue Health Center
Brighton 1st Path Health Center
Brighton 1st Place Health Center
Brighton 2 Path Health Center

Provider: Wiley Acevedo

Wednesday, February 13, 2013

| 9:30 AM | SHELBY CHAMBERS | F | 31 | Spanish |
| | MRN: 000000058279 | Diagnoses: | | |

| | Alert Type | Message | Most Recent Date | Most Recent Result |
| | Pap Smear | Overdue | 11/23/2009 | |

| 9:45 AM | TWILA BECKER | F | 67 | English |
| | MRN: 000009825904 | Diagnoses: | | |

| | Alert Type | Message | Most Recent Date | Most Recent Result |
| | Mammogram | Missing | | |

| 10:00 AM | GAYLE FRY | F | 75 | Spanish |
| | MRN: 000000044708 | Diagnoses: Diabetes Hypertension | | |

	Alert Type	Message	Most Recent Date	Most Recent Result
	A1c	Overdue	5/26/2011	6
	Eye Exam	Overdue	4/15/2009	
	LDL	Overdue	5/26/2011	58
	Mammogram	Missing		
	Microalbumin	Overdue	5/26/2011	
	Monofilament Exam	Overdue	10/19/2011	

Patient Visit Planning Report: showing a provider's scheduled patients for the day, including clinical services due

Patient Cost and Risk Management Report

Name	MRN	Age	Sex	Payer Risk Score	CHC Risk Score	Hospital Inpatient	Hospital Outpatient	Ambulatory Specialty	Pharmacy	Behavioral Health	$ YTD Cost	$ Annualized Cost	Most Recent High Cost Event	Most Recent External Event	# Non-Mat Inpatient Days	# Chronic Problems
Alfaro, Nate	1379830	59	M	0.91	High	$13,073.20	$ 5,650.21	$ 303.39	$ 966.00	$ -	$19,992.80	$27,590.32	Inpatient	Pharmacy	5	3
Xiong, Aubrey	3689027	72	F	0.31	Moderate	$ -	$ 2,992.99	$ 656.02	$ 40.01	$ -	$ 3,689.02	$ 3,945.93	Outpt. Surgery	Pharmacy	0	1
Maguire, John	9020832	45	M	0.75	High	$17,865.71	$ 6,573.23	$ 2,234.00	$ 314.97		$26,987.91	$43,789.71	Specialty	Lab	7	4
Gates, Jewel	8023902	56	F	0.63	Moderate	$ -	$ 17,645.18	$ 3,316.54	$ 267.92	$ 745.23	$21,974.87	$25,079.95	ER	Specialty	0	3
Patterson, Cooper	8940353	68	M	0.96	Low	$ -	$ -	$ 379.64	$ 242.37	$ -	$ 622.01	$ 713.81	N/A	Dental	0	1
McKnight, Harriett	6383462	42	F	0.12	Low	$ -	$ -	$ 123.67	$ 126.45	$ -	$ 250.12	$ 315.87	Specialty	Pharmacy	0	0
Dow, Flossie	1538232	51	F	0.55	Moderate	$ -	$ 1,799.03	$ 590.84	$ 429.16	$ -	$ 2,819.03	$ 3,271.72	N/A	Lab	0	2
Tran, Aaron	2362837	32	M	0.86	High	$ -	$ -	$ 2,798.00	$ 462.00	$13,829.00	$17,089.00	$28,172.00	ER	Ambulatory	0	2

Report in Development: Using payer claims data to calculate patient risk scores, calculate total patient cost, and identify use of external services

Referral Management- Registry View

All columns are sortable to offer maximum flexibility of use.

Referral Management- Registry

Advanced Mode | ▼ Filters | 🖹 PDF | 🖩 EXCEL | ⊙ Report Issue | 🎗 Add to Favorites

Page 1 of 507 ▶ ▶▶

Name	MRN	Age	Order Priority	Order Category	Due Date	Order Name	Order Status	Patient Risk Level	Sched Date	Ordering Dx	Ordering Location	Perf. Location	Result
Florence Avenue CHC or Dr. John Doe													
ALFARO, NADIA	000120663815	59	High	Diagnostic	8/19/2013	CT Head	Ordered	High		192.8	Internal	MGH	
XIONG, AUBREY	002130782201	72	Med	Referral	1/11/2013	Endocrine	Ordered	Med		250.2	Family	Joslin	
MAGUIRE, SUMMER	000416708910	45	High	Lab	8/16/2012	A1c	Completed	Med	8/16/2012	250.3	Internal	Quest	8.2
GATES, JEWEL	000554904229	56	Med	Diagnostic	8/15/2012	Hand X-ray	Obtained	Med	8/15/2012	891.2	Urgent	MGH	
PATTERSON, COY	000144374373	68	Low	Office Serv.	5/22/2013	B12 Inj.	Completed	Low	5/22/2013	622.1	Women's	Nurse	Injection completed
MCKNIGHT, HARRIETT	000463181104	42	Low	Referral	3/11/2013	Podiatry	Scheduled	Low	8/7/2012	250.1	Internal	ABC Feet	
DOW, FLOSSIE	000732803203	51	Med	Procedure	4/5/2013	Pap Smear	Results Received	Med	4/5/2013	121.3	Women's	Women's	See comment

Report in Development: A registry to identify open referrals by priority, type, date. Will support follow-up & closing of open referrals.