# New York Citywide Immunization Registry Annual Business Plan January 1, 2014 through December 31, 2014

Mission:

To improve the immunization status of New York City (NYC) residents by consolidating immunization information and sharing it with health care providers, families, individuals, schools, and agencies concerned with health.

Vision:

All NYC residents across the lifespan are appropriately immunized and have a complete record in the Citywide Immunization Registry (CIR).

#### **Background and Current Status**

Providers are required to report all immunizations administered to individuals less than 19 years of age in NYC to the CIR in accordance with NYC Health Code Sections 11.04 and 11.07 and New York State Public Health Law 2168. The NYC Health Code and State law also allow for voluntary reporting of immunizations administered to patients age 19 and over, with verbal consent of the patient.

The CIR is a central management tool of the NYC Department of Health and Mental Hygiene (DOHMH) Bureau of Immunization (BOI). As such, CIR data is used by all of the immunization program units to further the BOI's mission.

The CIR is integrated with VTrckS (as of January 2013) and BOI's Vaccines for Children (VFC) program, which is implemented primarily by the Vaccine Management Unit (VMU) and the Provider Quality Assurance (PQA) Unit. VMU is responsible for the VFC spend plan and processing of all VFC vaccine orders from ~1,400 NYC VFC providers entered online in the CIR's Online Registry vaccine ordering tool. VMU staff use CIR-generated VFC doses administered reports for VFC vaccine accountability and adjust provider VFC vaccine ordering to align with the provider's VFC-eligible patient population and vaccine usage. PQA facilitates and monitors VFC provider compliance with VFC program requirements and annual VFC reenrollment, and conducts visits to provider sites for both compliance with VFC and Assessments, Feedback, Incentives, and Exchange (AFIX). PQA staff use the CIR to generate coverage assessments for all AFIX visits. The CIR's Online Registry is used by all VFC providers for annual VFC re-enrollment. The CIR is also used to produce and send immunization

coverage rates and vaccine doses administered reports to all pediatric provider sites (1,664) on a quarterly basis.

The CIR is also used by BOI surveillance and perinatal Hepatitis B prevention program staff for determining the vaccination status of cases and contacts. In addition, BOI leadership uses the CIR for timely tracking of influenza coverage, throughout the influenza season, and for monitoring coverage among children and adolescents for all Advisory Committee on Immunization Practices (ACIP) recommended vaccines.

#### **Needs Assessment**

This plan reflects input from primary stakeholders in the NYC Immunization Information System (IIS), the CIR. These stakeholders include health care providers, managed care organizations (MCOs), the program components of the BOI, as well as the DOHMH Lead Poisoning Prevention Program (LPPP). Provider and MCO input are channeled to the CIR through the NYC Coalition for Immunization Initiatives and physician advisory group, both of which meet quarterly. CIR staff members also receive input from health care providers during site visits conducted for the purpose of facilitating timely and complete reporting to the CIR and use of the CIR for reminder-recall of under-immunized children and adolescents.

Several needs have been identified for CIR enhancements in the short- and long-term, which inform the goals and activities listed in the implementation plan. Chief among these are:

- 1) Increase query and reporting from provider electronic health records (EHRs) to CIR's Health Level 7 (HL7) Web service, since this will yield more timely and complete immunization reporting and queries will help clinicians avoid missed opportunities to administer all ACIP recommended vaccines at the visit;
- 2) Increase reporting to the CIR by adult provider practices and pharmacies;
- 3) Improve CIR data quality by reducing duplicate records, increasing the timeliness of reporting, and increasing completeness of reporting of fields such as VFC eligibility;

- 4) Implement a Web-based consumer access portal to empower parents and individuals to learn their children's, or their own, immunization status and receive notices of ACIP recommended vaccines due;
- 5) Build the CIR's capacity to support text message and email reminder/recall;
- 6) Enhance the CIR's VFC vaccine ordering tool to become a fully-featured VFC vaccine inventory management system;
- 7) Build the CIR's capacity to enable VMU staff to monitor temperatures in provider vaccine storage units;
- 8) Promote use of the Online Registry's electronic version of the CH205 (i.e., DOHMH's official child health examination form) to enable monitoring of immunization coverage in day care programs.

A major challenge to be faced in the near future is that the CIR and other BOI units are reliant on staff funded under time-limited Prevention and Public Health Fund (PPHF) grants. Resources will need to be identified to sustain important work underway to improve provider practices related to VFC vaccine accountability, vaccine storage and handling, and adolescent immunization coverage. In addition, PPHF-funded staff members are performing critical work to increase CIR interoperability with EHRs and improve CIR data quality.

# **Implementation Plan**

This business plan is divided into six areas of focus for the CIR:

- I. Provider Reporting and Use
- II. Supporting the Immunization Program, Other Agencies, and the Public
- III. Data Quality
- IV. Research and Epidemiology
- V. Operations and Functionality
- VI. Human Resources and Management

# I. Provider Reporting and Use

# **Goal 1:** All pediatric provider sites (1,664 facilities and private practices) report complete, timely and accurate immunization information and patient demographic data to the CIR.

**Target**: By 12/31/2014:

- 95% of pediatric provider sites submitted immunization information to the CIR within the last 6 months (baseline: 1,567 of 1,664 or 94.2%)

**Target:** By 12/31/2017

- 98% of pediatric provider sites submitted immunization information to the CIR within the last 6 months

**Monitoring and Evaluation Plan:** The above targets will be calculated for the Immunization Information System Annual Report (IISAR) and used as the data source to evaluate whether the targets were met.

# Objective 1: All childhood immunization providers are enrolled and report regularly.

- 1. Identify new providers and non-reporting providers through referrals from PQA, Managed Care Organizations (MCOs), the DOHMH Primary Care Improvement Project (PCIP), and others.
- 2. Monitor reporting by all providers monthly and conduct outreach to providers not reporting.
- 3. Give timely feedback to providers on the quality of data reported.
- 4. Continue to collaborate with NYC Health and Hospitals Corporation (HHC) central office to improve reporting by all HHC facilities.

# Objective 2: Providers are informed about the NYC Health Code and state Public Health Law reporting requirements and benefits of using the CIR.

#### **Activities:**

- 1. Inform providers of the immunization reporting requirements and the benefits of using the CIR through the following means:
- Site visits/Grand Rounds/other interactions conducted by PQA and medical specialists;
- Official communications distributed by broadcast e-mail and regular mail;
- Printed marketing materials;
- CIR Web site;
- Provider and MCO publications;
- CIR training webinars.

# Objective 3: Providers are able to report immunization information to the CIR easily and quickly.

#### **Activities:**

- 1. Expand use of HL7 Web service by providers with EHRs.
- 2. Continue to collaborate with PCIP to facilitate reporting through the HL7 Web service by providers using eClinicalWorks and other EHRs.
- 3. Continue to increase user friendliness and functionality of the Online Registry.
- 4. Ensure the Online Registry is up and available 99.5% of the time.

# **Goal 2:** All immunization providers across the lifespan are enrolled and report regularly.

**Target:** By 12/31/2017, reporting of all immunizations administered to all individuals is mandatory.

**Monitoring and Evaluation Plan:** The above target will be monitored every 6 months in senior staff meetings to evaluate progress toward the target.

# Objective 1: Promote enactment and implementation of legislation for mandatory lifespan immunization reporting to the CIR.

#### **Activities:**

- 1. Meet with the DOHMH General Counsel and Intergovernmental Affairs Office to assist with drafting legislation.
- 2. Collaborate with the New York State (NYS) Department of Health (DOH) immunization program on drafting of legislation and promoting its passage.
- 3. Identify, register, and facilitate reporting by adult immunization providers (e.g., pharmacies, OB-GYNs, internists); leverage Meaningful Use incentives and pandemic influenza preparedness activities to recruit adult providers.

# **Goal 3:** Providers and other partners (e.g. schools) use the CIR to help ensure children and adolescents are completely immunized.

**Targets:** By 12/31/14:

- 300,000 CH205 forms are generated annually through the Online Registry (baseline: 284,256)
- 200,000 patients per month are viewed in the Online Registry (baseline: 183,060)
- 150,000 patients per month are requested via guery from the HL7 Web service (baseline: 111,000)
- 72% of children 19 35 months received the complete 4:3:1:3:3:1:4 series (baseline: 70.1%)
- 67% of children 6 − 59 months received ≥ 1 dose of influenza vaccine administered during influenza season (baseline: 65%)
- -> 99% of adolescents 13 17 years received > 1 dose of Tdap/Td (baseline: 99%)
- 85% of adolescents 13 17 years received  $\geq 1$  dose of meningococcal vaccine (baseline: 83%)
- 70% of adolescent females 13 17 years received  $\geq 1$  dose of HPV (baseline: 63.2%)
- 42% of adolescent females 13 17 years received  $\geq 3$  doses of HPV (baseline: 39.2%)
- 50% of adolescent males 13 17 years received  $\geq 1$  dose of HPV (baseline: 45%)
- 24% of adolescent males 13 17 years received  $\geq 3$  doses of HPV (baseline: 19.7%)

**Targets:** By 12/31/2017

- 400,000 CH205 forms are generated annually through the Online Registry
- 300,000 patients per month are viewed in the Online Registry
- 300,000 patients per month are requested via query from the HL7 Web service
- 78% of children 19 35 months received the complete 4:3:1:3:3:1:4 series
- 75% of children 6 59 months received ≥1 dose of influenza vaccine administered during influenza season
- $\ge 99\%$  of adolescents 13 17 years received  $\ge 1$  dose of Tdap/Td
- $\ge 90\%$  of adolescents 13 17 years received  $\ge 1$  dose of meningococcal vaccine
- 75% of adolescent females 13 17 years received ≥ 1 dose of HPV
- 48% of adolescent females 13 17 years received > 3 doses of HPV
- 62% of adolescent males 13 17 years received  $\geq 1$  dose of HPV
- 39% of adolescent males 13 17 years received  $\geq 3$  doses of HPV

Monitoring and Evaluation Plan: The above targets will be calculated for the IISAR and/or the DOHMH Quarterly Performance Review (QPR). The IISAR and QPR reports will be used as the data source to evaluate whether the targets were met. CIR childhood and adolescent coverage will also be compared to National Immunization Survey (NIS) coverage to assess CIR data capture and as an independent measure of progress toward coverage targets.

# Objective 1: Providers use the CIR to complete and submit the savable CH205.

- 1. Enhance user-friendliness of the savable CH205, sunset the older version, and promote use of the savable version via webinars, communications, and site visits.
- 2. Collaborate with the DOHMH Bureau of Child Care and Office of School Health to promote provider use of the savable CH205.

# Objective 2: Providers use the CIR to perform reminder-recall.

#### **Activities:**

- 1. Offer webinars and conduct site visits to promote use of the Online Registry's patient reminder-recall functions.
- 2. Build text message and email reminder-recall capacity and facilitate provider use through promotion efforts and trainings.

# Objective 3: Providers have quick and easy access to the CIR.

#### **Activities:**

- 1. Respond promptly to all telephone, fax, emailed, and mailed requests for immunization records.
- 2. Online Registry is up/available 99.5% of the time.
- 3. Respond promptly to requests for CIR registration and Online Registry accounts (i.e., usernames, passwords) and training.
- 4. Troubleshoot and quickly resolve any problems with the Online Registry.
- 5. Respond promptly to requests for querying the CIR through integration with CIR's HL7 Web service; provide support for testing and moving the integration into production as soon as possible.

# Objective 4: The CIR is useful to providers in evaluating patient immunization status and immunizations needed.

- 1. Provide accurate and complete immunization histories and clinical decision support immediately to providers at the point of care, during the patient visit, via the HL7 Web service or Online Registry.
- 2. Maintain the Immunization Calculation Engine (ICE) clinical decision support system and promptly update it with all new vaccines, recommendations, and vaccine-related rules.
- 3. Complete development, testing, and deployment of the new Web-based ICE; migrate all CIR applications to Web-based ICE.

# II. Supporting the Immunization Program, Other Agencies, and the Public

Goal 1: The CIR supports the BOI, other DOHMH bureaus, other organizations and agencies, providers, and the public for the purpose of improving immunization coverage.

**Targets:** By 12/31/2014:

- 88% of total vaccine doses distributed through VFC are accounted for in the CIR (baseline: 86%)
- 66% of VFC provider sites report > 80% of vaccine doses distributed through VFC as administered to VFC-, underinsured (317)-, or State Child Health Insurance Program (SCHIP)-eligible children (baseline: 64.4%)

**Targets:** By 12/31/2017:

- ->90% of total vaccine doses distributed through VFC are accounted for in the CIR
- 70% of VFC provider sites report > 80% of vaccine doses distributed through VFC as administered to VFC-, underinsured (317), or SCHIP-eligible children.

**Monitoring and Evaluation Plan:** The above targets will be assessed quarterly based on CIR data. CIR data will be used as the data source to evaluate whether the targets were met.

Objective 1: Increase VFC accountability through generating VFC Doses Administered Reports (DARs) through the CIR, informing providers of their DARs, and linking VFC vaccine distribution to DARs.

- 1. Send letters and reports, including VFC DARs, to all pediatric provider sites on a quarterly basis with reminder of BOI policy (i.e., meet the 90% DAR target or be subject to reduced VFC vaccine shipments).
- 2. Conduct outreach to providers with DARs  $\leq$  80% to assist in resolving reporting problems, over-ordering, or other issues affecting DARs.
- 3. Support PQA unit staff in implementing VFC compliance site visits.

# Objective 2: The CIR facilitates improved VFC vaccine management and VFC program compliance by providers.

#### **Activities:**

- 1. Support use of the Online Registry's VFC vaccine ordering tool, including the feature for entering on-hand inventory with lot numbers.
- 2. Support use of the Online Registry for annual VFC re-enrollment.
- 3. Support use of the Online Registry for enabling providers to document completion of the required annual trainings for VFC vaccine storage and handling and VFC compliance.
- 4. Develop, implement and support enhancements to the Online Registry to enable providers to manage vaccine inventory.
- 5. CIR and Provider Profile continue to interoperate effectively with VTrckS.
- 6. CIR applications will enable VMU staff to monitor temperatures of provider vaccine storage units.
- 7. PQA continues to use the CIR for all provider AFIX assessments.

# Objective 3: The CIR is used to increase immunization coverage in child care programs and schools.

- 1. In collaboration with the Program Support Unit and the DOHMH Bureau of Child Care, promote and support use of the Online Registry by child care programs to assess the immunization status of their children and refer for needed immunizations, including the new influenza vaccination requirement.
- 2. Promote and support use of the Online Registry by schools to assess the immunization status of their children and refer for needed immunizations.
- 3. Continue to support HL7 Web service queries by the NYC Department of Education for immunization records of public school students.

# Objective 4: The CIR is used for surveillance, outbreak control, prevention of perinatal Hepatitis B, and Vaccine Adverse Event Reports (VAERS).

#### **Activities:**

- 1. Perinatal and Surveillance staff continue to look up immunization records in the CIR through MAVEN, as needed, and monitor Hepatitis B birth dose coverage.
- 2. CIR staff members enter immunization records collected by surveillance and perinatal staff into the CIR, as requested.
- 3. Online Registry feature enabling providers to report adverse events to VAERS is maintained.

# Objective 5: Collaborate with the NYS DOH, neighboring states, the Office of the National Coordinator (ONC), and Health Information Exchange (HIE) entities to facilitate sharing of immunization information to improve public health.

#### **Activities:**

- 1. Meet with NYS DOH and other State Health Departments to facilitate intra- and interstate information sharing.
- 2. Collaborate with ONC and HIE partners as opportunities become available.

# Objective 6: The CIR facilitates information dissemination to providers and the public.

- 1. Plan and coordinate quarterly meetings of the NYC Childhood Coalition for Immunization Initiatives and Physicians Advisory Group.
- 2. Support BOI blast email communications to providers based on CIR infrastructure and provider contact information.
- 3. Maintain Immunization Hotline for prompt response to telephone inquiries from providers and the public.
- 4. Provide CIR records to NYC Agency for Child Services staff members to assure that children in foster care are fully vaccinated.

# Objective 7: Work with MCOs on improving immunization coverage rates and improving participation in CIR by MCO network providers.

#### **Activities:**

- 1. Support data exchange with MCOs at least twice annually.
- 2. Automate data exchange to increase efficiency.
- 3. Promote MCO use of Online Registry for member record lookups.

# Objective 8: CIR staff participates in national committees and workgroups to promote use of IIS for increasing immunization coverage.

#### **Activities:**

- 1. CIR staff will continue to serve on the Association of Immunization Program Managers (AIM)-Registry Committee, AIRA Standards and Interoperability Subcommittee, AIRA Education Steering Committee, and ad-hoc workgroups convened by AIRA and CDC.
- 2. CIR staff will continue to serve in leadership positions within AIRA.
- 3. CIR staff will continue to participate in national IIS meetings convened by the CDC, Public Health Informatics Institute, and other public health organizations.

# Goal 2: The CIR is enhanced to provide consumers (i.e., parents, individuals) with Web-based access to their immunization records, along with the dates of next vaccines due, and the option to sign up for text message or email reminder/recall notices.

**Target:** By 12/31/2014, consumers have Web-based access to their immunization records, recommendations of immunizations due, and the option to sign up for text or email reminder/recall messages.

**Monitoring and Evaluation Plan:** Progress toward the above target will be monitored quarterly at the time of QPR meetings.

# Objective 1: Build, support and maintain a consumer access portal.

#### **Activities:**

- 1. Work with software development partners to build the needed functionality, including robust user authentication to ensure security and confidentiality of CIR information.
- 2. Vet the security functions of the portal with the NYC DOHMH General Counsel's office.
- 3. Support and maintain consumer access functionality, including consumer support services (e.g., timely response to calls, emails from consumers requesting assistance, record corrections, etc.).
- 4. Evaluate usefulness of consumer access functions and enhance the design and functionality, as needed.

# III. Data Quality

# **Goal 1:** CIR data is timely, accurate and complete.

#### **Targets:** By 12/31/2014:

- 95% of immunization records are received and processed by the CIR within 30 days (baseline: 92.7%)
- 12.5% of records for patients 0-18 years in the CIR are considered duplicates (baseline: 15%)
- 97% of patients (born within most recent calendar year) include a primary street address (baseline: 96%)
- 65% of immunization records include vaccine manufacturer (baseline: 62%)
- 72% of immunization records include vaccine lot number (baseline: 70%)
- $\geq$  99% of immunization records reported by VFC providers include VFC eligibility status (baseline: 98.3%)
- 10% of patients include an email address (baseline: 0%)
- 25% of patients include a cell phone number (baseline: 0%)

# **Targets:** By 12/31/2017:

- 98% of immunization records are received and processed by the CIR within 30 days
- 5% of records for patients 0-18 years in the CIR are considered duplicates
- 98% of patients (born within most recent calendar year) include a primary street address
- 70% of immunization records include vaccine manufacturer
- 80% of immunization records include vaccine lot number
- >99% of immunization records reported by VFC providers have VFC eligibility status
- 50% of patients include an email address
- 70% of patients include a cell phone number

**Monitoring and Evaluation Plan:** The above targets will be evaluated for the IISAR or for internal monitoring. CIR data will be used as the data source to evaluate whether the targets were met.

# Objective 1: Every individual age 0 – 18 immunized in NYC has a complete record in CIR.

#### **Activities:**

- 1. Load Vital Record file (birth certificate data) from the DOHMH Office of Vital Statistics twice weekly (or more frequently).
- 2. Match against Medicaid MCO files biannually, at minimum, to assess population capture.
- 3. Check quality of automated matching/merging programs and improve these programs as needed.
- 4. Maintain add-patient feature in the Online Registry to facilitate inclusion of children born outside of NYC or born in NYC before 1996 (when CIR started loading birth certificate data).
- 5. Conduct education to promote reporting of underreported fields, e.g., vaccine manufacturer and vaccine lot number.
- 6. Compare CIR childhood and adolescent coverage to NIS coverage to assess CIR completeness (benchmark: CIR coverage is within the confidence intervals of NIS).

# Objective 2: Demographic and immunization data in CIR are timely, accurate and complete.

#### **Activities:**

1. Provide feedback to offices and facilities in collaboration with PQA to improve data quality and immunization practices.

- 2. Continue sending quarterly letters and reports to providers including their DAR and UTD coverage as measured by the CIR.
- 3. Continue CIR Quality Assurance (QA) projects (i.e., deletions, clean-ups).
- 4. Develop/implement QA projects to locate/correct causes of inaccuracies.
- 5. Collaborate with PCIP to promote use of the CIR's real-time HL 7 Web service by electronic health records vendors; also promote use of the Web service by vendors not participating in PCIP.
- 6. Contact providers reporting by electronic batch file transfer and encourage them to send files daily.
- 7. Collaborate with other BOI units to develop a plan for capturing email addresses and cell phone numbers in the CIR.

# Objective 3: Every individual age 0-18 is represented by only one patient record in CIR.

#### **Activities:**

- 1. Assess duplicate patient record submission rates by providers and give feedback.
- 2. Assess duplicate patient record rates in the CIR every six months and update targets for reduction.
- 3. Ensure accurate automatic merging of immunization reports with Vital Records.
- 4. Continue batch and manual de-duplication.
- 5. Continue to improve CIR's automated matching and merging systems.
- 6. Refine programs to de-duplicate or display immunizations in the CIR in an unduplicated manner.

# Objective 4: The CIR provider / facility database is complete and accurate and is updated frequently.

- 1. Register all immunizing providers in the city and collaborate with PQA to conduct a site visit.
- 2. Update provider/facility address and contact information in connection with VFC re-enrollment, the quarterly DAR-UTD mailing, and outreach efforts.
- 3. De-activate providers no longer immunizing.
- 4. Develop, implement and refine programs to clean/update the provider/facility tables in the CIR.

# **Goal 2:** The Master Child Index (MCI) accurately reflects participating client databases, currently LeadQuest and the CIR, and supports cross-program analysis and research.

**Target:** LeadQuest, CIR and the MCI remain synchronized.

**Monitoring and Evaluation Plan:** CIR and LeadQuest staff will monitor synchronization weekly by checking record count and ID.

# Objective 1: LeadQuest, CIR and the MCI process all transactions according to agreed-upon rules to maximize the benefits of integration.

#### **Activities:**

Collaborate with Lead Poisoning Prevention Program (LPPP) to:

- 1. Conduct mass de-duplication activities and coordinate manual review of potential matches in human review queues.
- 2. Identify, analyze and match fragmented records of children born after 1996.
- 3. Identify false merges and re-create individual records.
- 4. Ensure CIR and LPPP understand each other's data, merging strategies, and de-duplication issues.
- 5. Check automated matching/merging program and enhance as needed.
- 6. Standardize addresses.
- 7. Address all issues affecting integrity of MCI.
- 8. Acquire knowledge of latest integration issues by participating in meetings/conferences.

### IV. Research and Epidemiology

# **Goal 1:** CIR regularly conducts epidemiological and analyses.

**Target:** Maintain participation in IIS sentinel site project by participating in all conference calls and meetings, submitting at least one manuscript to a journal for publication per year, maintaining > 85% of providers and children less than 19 years enrolled in the CIR, and supplying data and reports to CDC in a timely manner.

**Target:** CIR staff will give a minimum of 3 presentations on results of activities and research at local and national meetings such as NYC Immunization Coalition meetings, the CDC National Immunization Conference, other CDC meetings, and AIRA meetings.

Monitoring and Evaluation Plan: The above targets will be monitored in annual CDC sentinel site grant reporting.

# Objective 1: The CIR collaborates with internal and external partners, including physicians in the community, to undertake and support research projects.

- **Activities:**
- 1. Participate in research with other sentinel sites, and other partners, in areas such as:
  - IIS-EHR interoperability
  - IIS system functionality
  - Methods to assess use of vaccines and vaccination coverage using IIS
  - IIS support of immunization program activities
- 2. Develop and/or maintain tools to support research and analyses.
- 3. Allocate staff time for research activities.
- 4. Allocate staff time for development of abstracts, manuscripts, and presentations.

# V. Operations and Functionality

# Goal 1: The CIR is financially sustainable.

**Target:** Obtain adequate funding and staff resources for support and maintenance, as well as purchase of new servers and server upgrades, as needed.

Monitoring and Evaluation Plan: Review financial status of the CIR every six months with BOI leadership.

# Objective 1: Diversify funding sources and reduce operational costs.

- 1. Seek out grant opportunities and apply for supplemental funding from CDC and other sources, e.g., Medicaid.
- 2. Request funds from the DOHMH Lead program and Bureau of Child Care, when appropriate.
- 2. Reduce costs by migrating off of Oracle to open source database (PostGres).

# **Goal 2:** The CIR is an important tool for emergency preparedness and response.

**Target:** The CIR facilitates BOI's response to emergencies such pandemic influenza, other disease outbreaks, and hurricanes.

**Monitoring and Evaluation Plan:** The capacity of CIR to facilitate emergency responses will be evaluated every six months in meetings with BOI leadership.

Objective 1: The CIR enhances or maintains its current functions for registering new providers and supporting vaccine management, distribution, and accountability in response to emergencies.

#### **Activities:**

- 1. Continue to support and enhance the recently released CIR Web registration system.
- 2. Collaborate with the DOHMH Office of Emergency Preparedness and Response (OEPR) to integrate CIR's Web registration system with their Public Health Emergency Response (PHERN) system.

# Objective 2: The CIR uses its online blast email and text messaging functions to facilitate communication with providers and consumers during emergencies.

### **Activity:**

1. Provider contact information in the CIR is continually corrected and updated, as needed.

# **Goal 3:** CIR meets all 2013-2017 National Vaccine Advisory Committee (NVAC)-approved Functional Standards for immunization information systems.

**Target:** By 12/31/2014: Achieve compliance with the 2013-2017 NVAC Functional Standards by implementing the vaccine inventory management system in the CIR's Online Registry.

**Target:** By 12/31/2017: Maintain compliance with the 2013-2017 NVAC Functional Standards.

**Monitoring and Evaluation Plan:** The above targets will be reported in the IISAR. The IISAR will be used as the information source to evaluate whether the targets were met.

# Objective 1: The CIR functions in accordance with NVAC standards and collects the NVAC core data elements.

#### **Activities:**

- 1. Continue collaboration with the DOHMH Office of Vital Statistics to maintain loading of the birth certificate extract file into the CIR twice weekly (or more frequently).
- 2. Add fields for new core data elements and work with providers to report them.
- 3. Build, maintain, support and promote a vaccine inventory management system within the Online Registry.

# **Goal 4:** CIR supports national standards and operates at a high level of performance, with a minimum of downtime.

Target: The CIR, and CIR-related applications, are up and available 99.5% of the time.

**Monitoring and Evaluation Plan:** The CIR vendor constantly monitors CIR availability and reports on percentage of time up on a quarterly basis or as requested.

# Objective 1: The CIR is closely monitored and issues are identified and resolved promptly.

- 1. The CIR computer specialist monitors day-to-day operations and collaborates with CIR's vendor and the DOHMH Division of Informatics and Information Technology (DIIT) to promptly diagnose, troubleshoot and correct issues arising from systems, network, database, or application malfunctions.
- 2. Upgrade software and hardware as necessary.
- 3. Renew software and hardware support contracts when they expire.

Objective 2: CIR complies with national standards, including the CDC recommended standard interface, HL7 Implementation Guide, and Nationwide Health Information Network (NHIN) standards and specifications specific to IIS when they become available.

#### **Activities:**

1. CIR staff members participate in AIRA and CDC activities to remain abreast of, and in compliance with, national standards and specifications.

### Objective 3: CIR maintains an optimal level of security.

#### **Activities**

- 1. Maximize security through CIR and MCI system architecture.
- 2. Collaborate with DIIT and vendor to patch servers and workstations as needed.
- 3. Log and monitor user activity; promptly investigate suspicious activity.
- 4. Assure that all BOI staff using the CIR sign confidentiality statements annually.

# Objective 4: CIR is recoverable within one week after a disaster.

#### **Activities**

- 1. DIIT performs daily backups and monthly offsite rotation.
- 2. Regularly update and implement, when necessary, the plan for offsite disaster recovery.

### VI. Human Resources and Management

**Goal 1:** Staff members understand and work toward achieving the CIR's mission and vision, and communication is clear across levels and among staff within levels.

**Target:** CIR staff meetings are held regularly to promote communication across all staff levels.

**Monitoring and Evaluation Plan:** The CIR director will report on staff meetings to BOI leadership at senior staff meetings.

# Objective 1: Staff members clearly understand CIR's goals and each individual's role in meeting these goals.

#### **Activities:**

- 1. Each staff person has a copy of the strategic plan and organizational chart.
- 2. Tasks and standards (i.e., assigned responsibilities) for each staff person are related to the strategic plan and management indicators.
- 3. Assigned responsibilities are reviewed at least annually and performance evaluations are completed for each staff person annually.

# Objective 2: Staff members have knowledge of projects across levels.

#### **Activities:**

- 1. Meetings are held to keep all CIR staff informed and reinforce a sense of belonging to the CIR.
- 2. CIR senior staff meetings are held monthly or more frequently, as needed.
- 3. Team meetings are held monthly or as needed.

# Objective 3: Staff members understand NYC DOHMH employment policies.

#### **Activities:**

- 1. Printed materials from DOMHM Human Resources are distributed to all staff, and staff members are made aware of the availability of comprehensive information on the DOHMH Intranet.
- 2. Other DOHMH required trainings are completed by all CIR staff.

# Objective 4: Staff members have the work space, equipment and training appropriate to their job functions.

- 1. Space and equipment needs are discussed during performance evaluations or as needed.
- 2. Identify training needs during performance evaluations, or as needed, and staff attend trainings.

# Objective 5: The CIR leadership promotes cohesive and effective teamwork across levels.

# **Activities:**

1. Teams (i.e., front-line, data quality, outreach, technical) meet and senior staff report back at CIR senior staff meetings.

# Objective 6: Staff members are recognized for exceptional work.

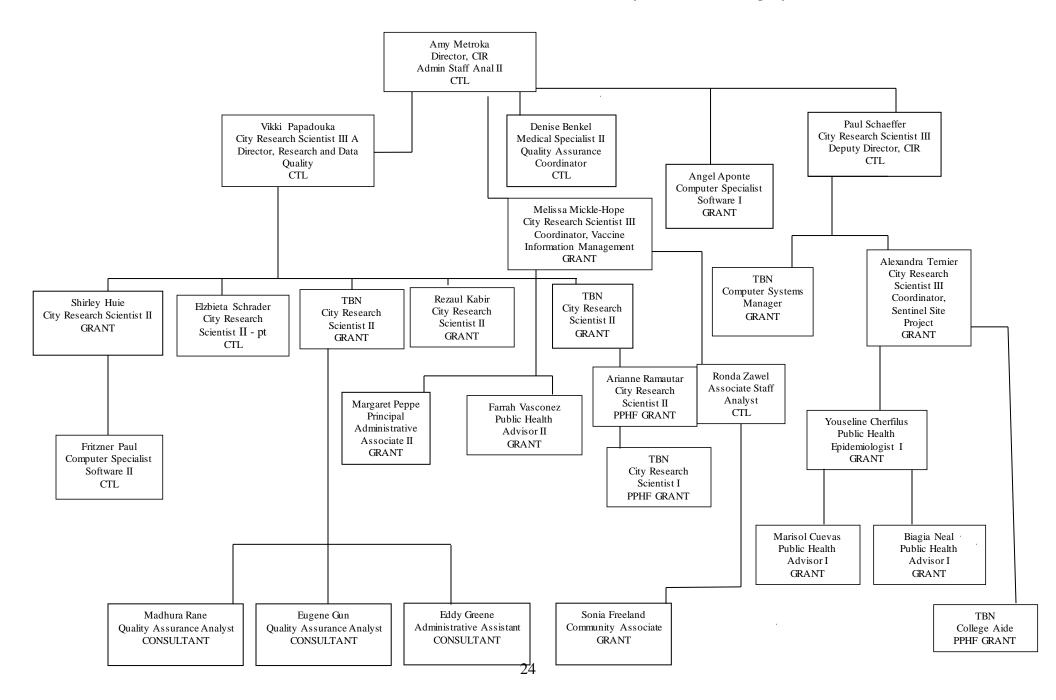
- 1. Exceptional work is highlighted at staff meetings.
- 2. Staff members present work at local and national meetings and write for publication.
- 3. Staff members are nominated for awards in recognition of outstanding service.

# Attachments

The following attachments are included:

- Organizational Chart
   Budget for Calendar Year 2014
- 3) Management and Staffing Plan

#### New York City Department of Health & Mental Hygiene, Bureau of Immunization Citywide Immunization Registry (CIR)



	Budget – FY 2014			
	LINE ITEMS	CTL	GRANT	TOTALS
	PERSONNEL SERVICES (PS)			
	TOTAL SALARIES *	\$664,492	\$1,009,790	
	Fringe @ 35.85%	\$238,220	\$362,009	
	Indirect Costs @ 9.4%	NA	\$94,920	
	TOTAL FOR PS	\$902,712	\$1,466,719	\$2,369,431
	OTPS (OTHER THAN PERSONNEL SERVICES)			
1	SUPPLIES	\$6,500	\$0	
2	POSTAGE	\$2,250	\$0	
3	EQUIPMENT – GENERAL	\$0	\$8,000	
4	DUES	\$200		
5	COMPUTER EQUIPMENT (hardware)	\$0	\$0	
6	TRAVEL - OUT OF TOWN	\$900	\$9,900	
	PRINTING	\$1,650	\$0	
8	COALITION MEETINGS	\$1,125	\$0	
	Indirect Costs @ 9.4%	NA	\$1,682	
	TOTAL OTPS (NON CONTRACT)	\$12,625	\$19,582	\$32,207
	CONTRACTS			
1	VENDOR- COMPUTER CONSULTING	\$275,000	\$0	
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	,	\$0	\$790,334	
3	SOFTWARE MAINTENANCE (Oracle, other)	\$42,239	\$15,516	
	Indirect Costs @ 9.4%	NA	\$75,750	
	TOTAL OTPS (VENDOR CONTRACTS)	\$317,239	\$881,600	\$1,198,839
	GRAND TOTAL			\$3,600,477

<sup>\*</sup>Includes 2 staff listed in Management and Staffing Plan Services under PPHF grants. \*\* Includes 3 Consultant staff listed on the organizational chart.

#### CITYWIDE IMMUNIZATION REGISTRY

### **City Tax Levy Positions**

(1) Administrative Staff Analyst II Amy Metroka Administrative Staff Analyst Reporting to the Assistant Commissioner, this position is responsible for the planning, direction and management of the CIR, VFC and Provider Quality Assurance (PQA)\AFIX programs. Approves expenditures, monitors expenditures, and allocates resources. Oversees outreach efforts to providers, health plans, and other agencies concerned with children's health. Oversees reporting to CIR, including informing providers of the health code mandate to report. Monitors provider submissions and implements protocols to encourage provider reporting. Prepares grant applications and develops budgets with proposed funding from federal, state or city agencies. Coordinates the activities and research efforts of CIR, VFC, and PQA\AFIX with other activities and research projects within DOHMH, other immunization information systems, outside agencies and the CDC. Presents the results of program activities at national, regional, and local conferences and meetings. Prepares presentations

### (1) City Research Scientist IIIA

and publications.

Vikki Papadouka City Research Scientist IIIA Initiates, designs and supervises projects and research efforts of the CIR and other programs within the Bureau of Immunization. Designs research projects that use CIR data to answer questions about vaccine uptake, immunization practices, trends and coverage levels and barriers to immunization. Supervises a staff of six Research Scientists responsible for outreach, Online Registry operations and quality of CIR data. Supervises staff working on the CDC sentinel site project. Has overall responsibility for the production of CIR indicators which are the basis for the DOHMH Commissioner of Health's Quarterly Program Review. Designs and supervises implementation of research and methods that measure and improve CIR data quality. Serves as the lead liaison between the CIR and vendors regarding the programming of the CIR's Immunization Calculation Engine for current and new vaccine recommendation. Prepares reports, write articles for publication, and presents findings at national, regional, and local conferences and meetings.

(1) Paul Schaeffer City Research Scientist III
Serves as the Deputy Director of the CIR, the project coordinator for the Master
Child Index (MCI) and lead liaison between the MCI, CIR, the Lead Poisoning
Prevention Program, and the Division of Information Technology. Works closely
with program and technical staff from these programs and CIR vendors to
develop, implement and maintain the CIR and MCI. Supervises the MCI team,
including coordinating interactions between CIR, the Lead Poisoning Prevention
Program, MCI and the Division of Information Technology. Assists in the

coordination of research projects. Designs, develops, and implements methodologies to assure the integrity of the data in the CIR and MCI . Assists in the planning, direction and management of the CIR and MCI; assumes responsibilities of CIR director in the director's absence. Allocates resources to achieve CIR and MCI goals and objectives. Directs the development of contracts, contract renewals, and Requests for Proposals. Directs the preparation and tracking of the CIR\MCI budget, including budget modifications. Writes articles on research results and findings for publication. Prepares reports and presentations and presents findings at national, regional and local conferences.

#### (1) Computer Specialist (Software) II

Fritzner Paul Computer Specialist (Software) II

Develops, implements, and maintains necessary technical support systems and protocols within BOI program to identify, monitor and track institutions, health centers, providers and other facilities reporting to the CIR and for reporting of VFC doses administered and VFC eligibility. Develops, implements, and maintains necessary technical support systems and protocols to support the initiative between the VFC and CIR to monitor VFC doses administered reports. Works closely with providers and facilities reporting electronically regarding a variety of technical issues, including irregular reporting, use of the Online Registry, the Web File Repository application, errors in data quality and reporting of VFC vaccine. Provides technical support for all BOI application installation, testing, and troubleshooting. Manages other special projects related to provider reporting as assigned.

Associate Staff Analyst Part-Time

Ronda Zawel Associate Staff Analyst Part-Time

Provides technical assistance to providers using the Online Registry and supports AFIX site visits by working with the PQA unit to train providers to use Online Registry functionality, especially reminder recall. Conducts Webinars and other trainings to train providers to use functionality in the Online Registry. Conducts quality assurance and evaluation activities and develops progress reports. Performs outreach activities to improve the quality of data reported to the CIR for VFC accountability and other program needs. Develops educational strategies and materials to be used for provider outreach for the purpose of regular and accurate reporting of data to the CIR, including VFC vaccine doses administered with VFC eligibility reported at the dose level. Develops strategies and protocols for maintaining standardized facility contact and address information in the CIR.

City Research Scientist I Part-Time

Elzbieta Kopec-Schrader City Research I Part-Time

Designs, develops and implements protocols for research projects related to assessing and improving the quality of the data in the CIR and MCI. Serves as a liaison between the CIR and vendors regarding the programming of the CIR's Immunization Calculation Engine for current and new vaccines. Collaborates with vendors, consultants and DOHMH staff on procedures to ensure data

integrity. Monitors and analyzes electronic submissions and provides feedback to providers pertaining to data submission and data quality. Designs and implements protocols for identifying duplicate records in the CIR and MCI, and follows protocols to merge and separate records. Handles, manipulates, and analyzes data for various CIR/MCI projects. Designs, develops and implements special research projects based on program needs.

#### City Medical Specialist II

<u>Denise Benkel</u> City Medical Specialist II

Plans, develops, and implements protocols to ensure completeness and accuracy of immunization and VFC eligibility data reported to the CIR by providers. Works with providers reporting electronically to correct a variety of technical issues, including irregular reporting, proper use of Online Registry functions, the Web File Repository application, reporting errors, and the reporting of VFC and other publicly purchased vaccine doses administered for accountability. Works directly with providers not complying with submission of VFC eligibility screening requirements and those with poor Doses Administered Reports and takes corrective action. Supports AFIX site visits by working with the Provider Quality Assurance (PQA) unit to train staff and providers to use Online Registry functionality, especially for reminder recall, vaccine ordering, and VFC eligibility. Provides training and guidance as a physician to PQA staff for VFC compliance and AFIX site visits and follows up with providers to resolve problems found during site visits. Develops and coordinates quality assurance activities to assure that complete and accurate records are submitted and maintained in the CIR. Prepares reports and educational materials and presents at national, regional and local conferences and meetings.

#### **Grant Positions**

#### (2) City Research Scientist III

Alexandra Ternier City Research Scientist III

Responsible for running queries, generating reports, and developing data analysis programs for the CDC sentinel site project. Develops new protocols for quality assurance and evaluation of CIR data. Designs and supervises implementation of evaluation and methods to measure and improve CIR data quality as it relates to duplicate records in the database. Works closely with CIR vendors and the Lead Poisoning Prevention Program to enhance matching and de-duplication capabilities for the CIR\MCI, including model development and evaluation. Serves as a liaison between the CIR and outside vendors to design and implement database changes to create or enhance computer programs for the purpose of improving CIR data quality and serving the data analysis needs of the sentinel site project Prepares reports and presentations for sentinel site national meetings and coordinates evaluation efforts using CIR data with other evaluation projects for the CDC and other registries. Performs other tasks related to data quality

assurance, application development and testing, and staff supervision based on program needs.

### (1) City Research Scientist III

Melissa Mickle-Hope City Research Scientist III

Directs and coordinates data collection to account for vaccines distributed through the VFC program. Oversees maintenance and enhancements of the Provider Profile database, which links vaccine orders to reporting of doses administered to the CIR to account for use of VFC and other publicly purchased vaccines. Has overall responsibility for Doses Administered Reports (DAR) that compare doses shipped to doses reported, and supplies this information to the Provider Quality Assurance (PQA) staff for dissemination during VFC and AFIX visits. Tracks provider coverage and DAR for dissemination in quarterly mailings to providers, and supervises the dissemination of these reports. Develops and implements initiatives to improve vaccine accountability. Oversees the day- to-day operations for VFC vaccine ordering and distribution. Oversees CIR outreach team, and runs coverage reports to support the PQA unit for AFIX visits. Supervises the team that provides critical technical support and assistance to VFC providers and to PQA staff for VFC and AFIX site visits. Develops and refines systems for forecasting of provider site vaccine needs to ensure adequate supply. Conducts data analyses using CIR and/or VFC data. Prepares reports and presents findings at national, regional, and local conferences and meetings. Writes articles on evaluation results or findings for publication.

### (4) Rezaul Kabir City Research Scientist II

Oversees data exchange activities between the CIR and Managed Care Organizations (MCOs) and oversees design, maintenance, and enhancements to the CIR as they relate to data exchange with health plans. Works closely with NYC schools to encourage use of the Online Registry. Performs outreach activities to improve the quality of data reported to the CIR for VFC dose level accountability and other VFC program needs. Designs and directs development and implementation of methodologies for assuring the integrity of CIR, VFC and AFIX data to support VFC program needs. Runs coverage reports for the PQA unit for AFIX and for use during AFIX and VFC compliance site visits. Assists with quality assurance activities to assure that complete and accurate records are maintained in the CIR. Develops long-term goals, objectives and priorities in collaboration with the CIR Director and other senior staff. Prepares reports and presents at national, regional and local conferences and meetings.

#### Vacant City Research Scientist II

Conducts data analyses to assess and improve CIR's data quality. Assesses immunization coverage by provider and by geographic location. Plans, develops, and evaluates protocols and research related to quality assurance and evaluation of CIR, AFIX and VFC data. Designs and supervises the implementation of enhancements to the Provider Profile database to track vaccine doses. Runs CIR coverage reports to support the PQA unit for AFIX visits. Serves as a liaison

between the CIR and outside vendors and consultants on the design and implementation of enhancements to computer programs for the purpose of improving CIR, VFC, and AFIX data quality. Prepares reports for internal and national presentations Supervises staff in conducting research projects using the CIR, VFC and AFIX data Prepares reports on findings and presents findings at national, regional, and local conferences and meetings. Writes articles on research results or findings for publications

#### Kristen Forney City Research Scientist II

Plans, develops, and implements protocols to ensure completeness and accuracy of data from providers reporting to the CIR via their Electronic Health Record (EHR) in Health Level 7 (HL7) format. Monitors Meaningful Use (MU) policies and works with healthcare providers to support their demonstration of MU of their EHRs for the reporting of immunizations. Designs, develops and implements measures to analyze CIR data submitted via HL7 for completeness and accuracy in particular, VFC eligibility screening and vaccine lot number and manufacturer information.. Trains and supervises staff to measure data quality submitted to the CIR via HL7 and to outreach to providers to improve data quality. Assists the CIR's Director of Research and Evaluation in developing and analyzing Bureau indicators using CIR data. Conducts data analysis relating to immunization coverage and other immunization- related measures to support the Bureau's mission. Works with EHR vendors to promote inclusion of VFC eligibility screening requirements into the EHR functionality and ensures this information is included in the implementation guide. Works with EHR vendors and providers to ensure that immunization data received can provide for dose level accountability. Prepares reports and presentations for national, regional, and local conferences and meetings. Assists with writing articles on research results or findings for publications.

### Shirley Huie City Research Scientist II

Serves as head liaison between the CIR and outside vendors and consultants on the design and maintenance of the Online Registry. Tracks use of the Online Registry, including reminder recall functionality and use of the CH205 form. Provides technical assistance to providers using the Online Registry and supports AFIX site visits by working with the PQA staff to train providers to use Online Registry functionality, especially reminder recall. Conducts Webinars to train providers to use new functionality in the Online Registry including all VFC functionality. Develops educational strategies and materials to be used for provider outreach which is disseminated during AFIX site visits. Develops strategies and protocols for maintaining standardized facility contact and address information in the CIR database, which is used to accomplish CIR and VFC objectives. Develops long-term goals, objectives and priorities in collaboration with the CIR Director and other senior staff. Prepares reports and presents at national, regional and local conferences and meetings.

# (1) Computer Specialist Software I

Angel Aponte Computer Specialist Software I
Serves as technical team leader for the CIR and MCI databases. Provides technical support for the Provider Profile database, which accounts for VFC doses administered. Provides technical support, including writing complex database queries, to the PQA unit for AFIX and VFC site visits. Provides technical advice and assistance to senior management on issues related to CIR applications including those that support the PQA and VFC units. Oversees the acquisition, integration and implementation of hardware and software for technological upgrades. Provides oversight and support of the day-to-day technical operations of the CIR and MCI. Serves as a technical liaison between the CIR, the Lead Poisoning Prevention Program, MCI, the Division of Information Technology and other DOHMH programs. Works closely with the program and technical staff from these programs to improve the overall operations of the CIR and MCI.

#### (1) Computer Systems Manager I

Vacant Computer Systems Manager I

Provides oversight and support of the day-to-day technical operations of the CIR, the MCI and the Provider Profile. Maintains appropriate applications to send blast emails from BOI to immunizing providers. Provides technical advice and assistance to unit chiefs on issues related to CIR applications including those that support the PQA and VFC units. Develops and manages complex CIR, AFIX and VFC database queries and data structures for CIR, PQA and VFC staff. Develops and maintains new reports and queries that will assist staff in working with CIR, AFIX and VFC data. Maintains and improves the capabilities of existing reports and queries. Assists in the development and implementation of new strategies to improve data accuracy and data use by providers. Provides technical assistance to CIR, PQA and VFC staff. Troubleshoots hardware and software problems.

#### (1) Principal Administrative Associate II

Margaret Peppe Principal Admin. Associate. II

Processes, monitors and analyzes publicly purchased vaccine orders, especially influenza orders. Ensures vaccine orders are placed in the Online Registry, processed properly, and uploaded correctly into VACMAN. Conducts outreach to immunizing providers to provide training on the use of the VFC vaccine ordering tool in the Online Registry. Ensures providers submit all required information to order vaccine, including on-hand inventory and temperature logs. Assists providers to re-enroll yearly in the VFC program. Reviews vaccine accountability information on providers before orders can be processed. Assists in the preparation of reports, findings and recommendations for the VFC program.

#### (2) Public Health Advisor I

Marisol Cuevas Public Health Advisor I

Disseminates vaccine-related information to providers, parents, health plans and the public at large. Supports day to day operations of the VFC program by supporting the Bureau's provider hotline and providing information about the

VFC program and it requirements. Assists with vaccine orders from providers and with VFC re-enrollment. Implements protocols for identifying duplicate records in CIR and MCI and follows protocols to merge and separate records. Participates in outreach efforts for recruitment and retention of providers in the CIR. Prepares reports as needed.

#### Biagia Neal Public Health Advisor I

Disseminates vaccine-related information to providers, parents, health plans and the public at large. Supports day to day operations of the VFC program by supporting the Bureau's provider hotline and providing information about the VFC program and its requirements. Assists with vaccine orders from providers and VFC re-enrollment. Trains and supervises frontline staff in disseminating CIR and VFC information to providers, parents, MCOs, and the public at large. Performs other tasks as needed to improve the overall quality of the CIR database. Implements protocols for identifying duplicate records in CIR and MCI and follows protocols to merge and separate records. Participates in outreach efforts for recruitment and retention of providers in the CIR. Prepares reports as needed.

#### (1) Public Health Advisor II

Farrah Vasconez Public Health Advisor II

Responsible for the recruitment and retention of health care providers as active participants in the VFC program and as users of the Online Registry, including use of reminder/recall and VFC vaccine ordering functionality. Conducts field visits to immunization providers throughout the city to provide technical assistance on use of the Online Registry. Assists with quality assurance activities to assure that complete and accurate records are submitted and maintained in the CIR especially for VFC eligibility and dose level accountability. Supports and trains Provider Quality Assurance (PQA) staff to use the reminder\recall and VFC vaccine ordering functionalities in the Online Registry for their use during AFIX and VFC compliance site visits. Contributes to updates and maintenance of the databases to track VFC and AFIX performance indicators. Provides support for organizing meetings of the Childhood Coalition for Immunization Initiatives, which targets immunizing providers, Medicaid Managed Care Organizations and community-based organizations.

# (1) Public Health Epidemiologist I

Youseline Cherfilus Public Health Epidemiologist I

Supports day to day VFC program operations by overseeing the Bureau's provider hotline and providing education and information about the VFC program and its requirements. Trains and supervises staff in achieving completeness and accuracy of CIR data and assists with VFC orders and with VFC re-enrollment. Trains and supervises frontline hotline staff in disseminating information to providers, parents, health plans, and other agencies and the public at large. Designs and implements protocols for identifying duplicate records in the CIR and MCI, and follows protocols to merge and separate records. Handles,

manipulates, and analyzes data for various CIR/MCI Quality Assurance projects. Performs other tasks as needed to improve the overall quality of the CIR database.

### (1) Community Associate

### Sonia Freeland Community Associate

Provides technical assistance to providers using the Online Registry and supports AFIX site visits by working with the Provider Quality Assurance (PQA) Unit to train providers to use Online Registry functionality, especially reminder recall. Conducts Webinars to train providers to use new functionality in the Online Registry. Conducts quality assurance and evaluation activities and helps with VFC provider education to reduce incidents of vaccine loss due to spoilage or expiration. Performs outreach activities to improve the quality of data reported to the CIR for VFC eligibility screening and VFC vaccine dose level accountability and other VFC program needs. Develops educational strategies and materials to be used for PQA staff for VFC compliance and AFIX site visits for the purpose of regular and accurate reporting of immunization and VFC eligibility data to the CIR.

#### **PPHF Grants**

#### Alaina Stoute Research Scientist II

Responsible for requirements and specifications for the Vaccine Inventory Management module. Performs staff training as well as creating interactive provider training modules focusing on new functionality in the online ordering tool. Works closely with VFC providers to provide technical and operational support for the enhanced online ordering tool and other new CIR Online Registry features. Interacts with other immunization grantees to exchange information regarding IIS inventory and ordering components and VTrckS ExIS interfaces.

#### Arianne Ramautar Research Scientist I

Works with CIR staff on the design of the Vaccine Inventory Management module. Works closely with VFC providers to provide technical and operational support focusing on new features in the online ordering tool. Performs site visits and conference calls to train providers on the enhanced online ordering tool and other CIR features. Conducts Webinars focusing on the ordering tool as well as other new features of the CIR.

#### John Ayad College Aide

Runs coverage rates by provider for small area analysis grant. Verifies provider contact information in the CIR database. Disseminates information to providers, parents, health plans, and other agencies and the public at large. Identifies duplicate records in the CIR and MCI, and follows protocols to merge and separate records.

#### In-house Consultants:

# Madhura Rane Quality Assurance Analyst

Uses quality assurance tools to ensure completeness and accuracy of data from providers reporting to the CIR via their EHR in Health Level 7 format. Analyzes CIR data submitted via HL7 for completeness and accuracy. Works with EHR vendors to promote inclusion of VFC eligibility screening requirements into the EHR functionality and ensures this information is included in the implementation guide. Works with EHR vendors and providers to ensure that immunization data received can provide for dose level accountability.

### Eugene Gun Quality Assurance Analyst

Uses quality assurance tools to ensure completeness and accuracy of data from providers reporting to the CIR via their EHR in Health Level 7 format. Analyzes CIR data submitted via HL7 for completeness and accuracy. Works with EHR vendors to promote inclusion of VFC eligibility screening requirements into the EHR functionality and ensures this information is included in the implementation guide. Works with EHR vendors and providers to ensure that immunization data received can provide for dose level accountability

#### Eddie Green Administrative Assistant

Responsible for administrative tasks such as sending materials to provider sites and EHR vendors, collecting confidentiality agreements, creating accounts for vendors and providers and tracking provider enhancements.