ABSTRACT
The Suffolk Care Collaborative Population Health Management Roadmap has been designed as an outline to operationalizing the Population Health Management strategy across Suffolk County. This Roadmap guides us to true success in Population Health Management by creating the foundation for which all of our work will be completed. SCC defines successful achievement once patients can access affordable care, at the right time, at the right place, when providers have entered into value based payments with a focus on quality, and when the overall healthcare outcomes of Suffolk County have improved.

Suffolk Care Collaborative
www.suffolkcare.org

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Introduction

The Suffolk Care Collaborative (SCC) is the Performing Provider System (PPS) for Suffolk County under the Delivery System Reform Incentive Payment Program (DSRIP). We acknowledge DSRIP as a five year opportunity to demonstrate how we, as a County of clinical and community providers, can design a system to improve population health and clinical outcomes, while lowering system costs and improving patient satisfaction for the uninsured, medically underserved and Medicaid patient populations.

The SCC’s guiding principles described below ensure our direction as a change-agent participating in the DSRIP program;

- To improve access to care, particularly for Medicaid and uninsured populations
- To improve disease management, particularly for those with chronic disease
- To eliminate health disparities in Suffolk County
- To develop a robust data infrastructure and advanced analytical capabilities in support of effective care coordination and population health management
- To transform SCC into a highly efficient, integrated delivery system
- To assure that all SCC operations integrate concepts of cultural competency and health literacy
- To establish a solid foundation of team-based care across medical, behavioral, and social services
- To assure that patients obtain the right care at the right time, while avoiding unnecessary services; and
- To move providers away from the traditional fee-for-service payment methodologies and toward value-based payment methodologies.

The SCC envisions an integrated, collaborative and accountable service delivery structure that incorporates the full continuum of care, mitigating service fragmentation while increasing the opportunity to move from fee-for-service to an outcome-based payment model. Our work in establishing an Integrated Delivery System (IDS) will facilitate the creation of this structure by incorporating the medical, behavioral health, post-acute, long term care, social service
organizations and payers to transform the current service delivery system from one that is institutionally-focused to one that centers around community-based care.

Why Now? The Burning Platform

Across the County, widespread system-level gaps have led to inappropriate utilization of services and poor health outcomes for the Medicaid and uninsured population. Fragmented clinical services have led to high disease prevalence, poor health outcomes and silos in delivery of care for complex patients with chronic disease.

The United States is currently spending one and a half times as much as any other country in healthcare costs, however the outcomes associated with these costs are sub-optimal. In fact, according to the Commonwealth Fund, the US ranks 11th in health care quality, access, efficiency and equity when compared to other industrialized countries. More than 75% of healthcare costs in the US are attributed to those patients with chronic conditions and approximately 80% of older adults have at least one chronic condition. Obesity and infant mortality rates are also high and continue to rise. New York in particular spends over $54 billion in Medicaid dollars, second only to California.

The Suffolk Care Collaborative conducted a Community Needs Assessment which identified key areas of need for our Medicaid and uninsured population. Specifically, of the 269,278 Medicaid members in Suffolk County, 34,944 had hospital discharges in 2012 and 119,932 had ED visits, 72% of which were potentially avoidable. The disease processes found to be most prevalent in our population are psychiatric disorders, cardiovascular disease, substance use disorders, cancer, diabetes, and asthma. When considering behavioral health hospital admissions, patients with these diagnoses account for 58% of the total Medicaid spending and stay in the hospital 1.65 times longer than non-behavioral health recipients. Through DSRIP, we have an opportunity to transform health care delivery.

Our Solution? Population Health Management

Our solution to achieve our goals is the implementation of a Population Health Management strategy, a required characteristic of an Integrated Delivery Systems (IDS) in the changing
landscape of healthcare. This strategy includes a focus on prevention, identification of high risk populations and an ability to support and manage these patients which is crucial in order to change the trajectory towards avoidance of preventable hospitalization utilization and to ultimately improve the quality of care delivered and the health outcomes for Suffolk County.

The Suffolk Care Collaborative has defined Population Health Management as achieving the following: Population Health Management is the aggregation of patient data across multiple health information technology resources, the analysis of that data in a single, actionable patient record, and the actions through which care providers can improve both clinical and financial outcomes. It is the technical field of endeavor which utilizes a variety of individual, organizational, and cultural interventions to help improve patient self-care, morbidity patterns, and the health care use behavior of defined populations.
Building Our Roadmap to Success

The Suffolk Care Collaborative views planning for Population Health Management as a fundamental step in laying foundational building-blocks for successful participation in the DSRIP Program. It originates with defining Population Health Management, Clinical Integration and Clinical Interoperable Systems. The figure below demonstrates the foundational building blocks as a pie process. In order to achieve our Population Health Management definition, we must ensure we achieve our Clinical Interoperable Systems and Clinical Integration definition.

Figure 1: Defining Our Foundational Building Blocks

Adopting a Population Health Management Strategy

Leveraging our definitions, program stakeholders collaborated on the adoption of a PHM Strategy to ensure we design an effective PHM Program. The SCC’s PHM Strategy is a cyclical
relationship of the following elements: Defining the population, Identify Care Gaps, Stratify Risks, Patient Engagement, and Manage Care and Measure Outcomes. We acknowledge the strategy in Figure 2, below, and will speak to each element throughout this Roadmap.

Figure 2: PHM Strategy

Leadership, Roles & Responsibilities

Planning for PHM includes identifying leadership roles and responsibilities within a program governance model inclusive of the following:

- **Clinical and Non- Clinical Program Sponsors**: An active senior management role, responsible for identifying the business need, problem, or opportunity. These roles ensures the program efforts remains a viable proposition and that benefits are realized.

- **Clinical Quality Governance**: The mission of the Clinical Quality Committee shall be to provide guidance in establishing a clear vision for improving the quality of the healthcare services provided by the SCC and Coalition Partners.

- **Clinical Program Design & Development Subject Matter Experts**: Stakeholders engaged voluntarily or contracted through procurement to provide guidance and intellectual capital into a particular area or topic.

- **Change Management Representation**: The design and implementation of a method to manage change and development within a program. Includes dedicated staff to control identification and implementation of required changes based on experience and maturity of programs.
- **Provider Relations Managers**: A strategy in which a continuous level of engagement is maintained between the SCC and all Integrated Delivery Systems providers. Functions include communication, education, monitor risks, issues and motivation.
- **Care Management Organizations**: Representation of Suffolk County’s care management entities whom assist patients and their support systems in managing medical conditions and related socio-determinants of health more effectively, with aims of improving patients’ functional health status and enhancing the coordination of care.
- **Health Information Technology (HIT)**: Leadership roles to support health information management across systems and the secure exchange of health information between consumers, providers, payers and quality monitors.
- **Performance Reporting & Improvement Measurement Representation**: Perform regular measurement of outcomes and results, which generates reliable data on the effectiveness and efficiency of programs. Communicate reports through a communication plan to all influencers and internal/external stakeholders.
- **Community Based Organizations**: Representatives of public or private nonprofit (including church or religious entity) that is representative of a community or segment of a community, and is engaged in meeting human, educational, environmental or public safety community needs. Engagement of new or established CBOs is a function of a successful PHM model to ensure patient populations receive community-based support.

**Acknowledging Key Considerations for Implementation**

Planning also includes the acknowledgement of considerations when implementing the PHM Roadmap, we understand providers participating;

- Will require education and communication to support the challenge of being a change-agent. Internal and external program stakeholders defined above will need to be educated in Population Health Management and Integrated Delivery Systems.
- At an operational level will be asked to change work flow processes, structure and potentially to implement effective PHM in their practices as well as adopt new types of automation tools.
• Will be asked to share their clinical data to support our PHM analytics and measurement of outcomes.
• Will be measured on their outcomes and rewarded on efficiency and quality, which will drive reimbursement in future value-based purchasing models.

Designing a PHM Roadmap
The PHM Roadmap design includes the checkpoints described in Figure 3. Checkpoints include elements from our PHM Strategy and enable us to define phases, structure efforts, as well as define goals and deliverables. Each PHM Checkpoint will be explored through the remainder of this publication.

Figure 3: Population Health Management Roadmap Checkpoints
Data Collection, Storage & Management

Investing time and resources to ensure the proper data collection, storage and management protocols are in place for the collection of reliable data is a lynchpin variable and a pre-requisite for all elements of the data-ingestion plans described herein.

Data Collection Methodology

The Suffolk Care Collaborative PPS framework involves interaction and collaboration within “Hub Structures” (herein referred to as a “HUB”). This structure allows for pre-existing health system capabilities to be leveraged within those hospital and provider networks in terms of implementing strategies and utilizing IT infrastructures. The networks included in the SCC Hub model are Catholic Health Services (CHS), Northwell Health (NWH), and Stony Brook University Hospital (SBUH).

This graphic details the relationship of the HUBs within the PPS:

![Graphic of HUB relationships]

The SCC has developed a strategy which allows for each HUB to manage data independently and then have this data ingested into a “SCC EDW” (enterprise data warehouse) which is capable of generating reports and registries used to monitor performance and highlight populations in need. This inter-HUB technology relationship works as demonstrated in the graphic below:
In order to effectively manage populations being served in the HUBs, each HUB has chosen a Population Health Management Tool. These tools are each meant to build integrated, reliable data sets that allow for identification and stratification of populations requiring management. These are described in more detail here.

Data Storage and Management at the SCC EDW
Data stored in the SCC EDW is cloud based and can be accessed either through associated EMR systems or via the web utilizing two-factor authentication. This data is stored within the Cerner tool and access is managed by the SCC Information Privacy and Security Staff. This team is charged with ensuring that Cerner stores all protected health information in a secure manner. The SCC has policies in place which address access and current state data storage of the Member Roster File.
Use of Technology to Monitor & Stratify Populations

Information technology infrastructure is required to support our population health management strategy, to enable for example, creations of a population health dashboard on available data sets and registries. In order to monitor and manage identified populations, the following tools have been implemented by each HUB:

Stony Brook University Hospital HUB Information Systems

The Suffolk Care Collaborative has invested in a Population Health Platform powered by Cerner. Cerner believes the best way to manage the health of a population is one person at a time, their solutions allow organizations to:

- **KNOW** what is happening and predict what will happen within your population
- **ENGAGE** providers and patients in health and care delivery
- **MANAGE** health and improve care

We’ve described below each module of the Cerner platform, the SCC Population Health Management tools:

**POPULATION MANAGEMENT PLATFORM: HealtheIntent™**

HealtheIntent™ is a multi-purpose, programmable platform designed to scale at a population level while facilitating health and care at a person and provider level. This cloud-based platform
enables health care systems to aggregate, transform and reconcile data across the continuum of care. A longitudinal record is established, through that process, for individual members of the population that the organization is held accountable for; helping to improve outcomes and lower costs for health and care. HealtheIntent is scalable, secure and can be accessed anywhere, anytime. It is able to receive data from any EHR, existing HIT system and other data sources, such as pharmacy benefits manager or insurance claims. HealtheIntent collects data from multiple, disparate sources in near real-time, providing clarity to millions of data points in an actionable and programmable workflow. It enables organizations to identify, score and predict the risks of individual patients, allowing them to match the right care programs to the right individuals.

PATIENT LONGITUDINAL VIEW: HealtheRecord™

HealtheRecord™ creates organized views of a person’s medical record out of HealtheIntent™ that are easily consumed by both health care providers and patients. HealtheRecord™ provides focused synthesized views of problems and conditions, allergies, medications, immunizations, procedures, lab results, vital signs, and visits for the health care provider. HealtheRecord™ provides focused, synthesized views of problems and conditions, allergies, medications, immunizations, and lab results for the patient. Synthesized views are based on ontologies for each component display. The initial synthesized views by ontology are made up of conditions, allergies, medications, and immunizations. Lab results, vital signs, procedures, and visits have synthesized views by code roll-up.

REGISTRIES: HealtheRegistries™

HealtheRegistries™ is a chronic condition and wellness registry solution, which leverages clinical, financial and operational data across disparate sources and normalizes the data into meaningful information. Utilizing the HealtheIntent™ platform, members are identified, attributed, measured and monitored at an individual or population level. HealtheRegistries also provides the ability to identify, score and predict risks of individuals or populations to allow targeted interventions to be implemented. HealtheRegistries™ is designed to enable:

- Quality measurements for chronic conditions and wellness
- Scorecard performance at the provider and organizational level
- Generic and therapeutic substitution views
- Member outreach

Patient Registry Measures

CARE MANAGEMENT: HealtheCare™

To empower the care management workforce, we have created a knowledge-driven workflow solution, which supports a community-based care management model. HealtheCare™ is a person-centric approach of proactive surveillance, coordination and facilitation of health services across the care continuum to achieve optimal health status, quality and costs. The solution is designed to facilitate transitions of care through the exchange of pertinent information and care planning.

The Suffolk Care Collaborative HealtheCare program provides MARA (Milliman Advanced Risk Adjusters) risk scores for all patients in the population and allows you to sort by score in order to target those with the highest score first. Each individual risk score is comprised of data from four categories: inpatient, outpatient, physician and pharmacy. Additionally, the HealtheRegistires program described above, allows for the generated of disease related reports that can focus a care manager on a given population of patients requiring intervention for their chronic conditions and/or preventive health measures.
ANALYTICS AND REPORTING: HealtheEDW

HealtheEDW is powered by the HealtheIntent™ platform, which aggregates data (clinical, financial and operational) across multiple disparate sources and normalizes the data. HealtheEDW allows organizations to review current performance, historical trends, benchmarks and other analytics capabilities that provide input into continual process improvement initiatives. This includes reporting capabilities within the HealtheEDW analytics.

PATIENT PORTAL: HealtheLife™

HealtheLife™ enables members to access health information, contact providers, engage with Care Managers on care-plans, receive risk assessments, education material specific to their needs/plans and get alerts, connect to home-monitoring devices and is mobile. The solution supports a broad range of activities that allow a member to engage with her/his health care organizations. This empowers a member to become a proactive member of his/her care team.

Catholic Health Services HUB Information Systems

Catholic Health Services of Long Island has implemented Epic as its enterprise electronic medical record solution. The integrated solution includes Epic inpatient clinicals, inpatient pharmacy, emergency department, surgery, scheduling and radiology. Epic has been
implemented in various ambulatory owned and affiliate practices. ADT, financial and ancillary systems are interfaced into the Epic EMR.

Epic’s population health management solution, Healthy Planet, provides various risk scoring systems that can determine both general risk scores in addition to disease specific risk stratification. In addition, Healthy Planet providers can track and trend quality measures and identify patients with gaps in care. The registry framework can aggregate patient cohorts by clinical conditions and payor programs such as CCJR and MSSP.

Epic also provides care management patient outreach tools which allows clinicians to track when the patient was contacted, why they were contacted, documentation of social determinants of care, clinical assessments, progress notes, patient education, care planning and scheduling the next patient contact date.

A Longitudinal Plan of Care is accessible to all care team members and is derived from pulling pertinent data from various aspects of the medical record. Goals can be set and individualized based upon specific patient needs and progression of the goals can be tracked over time.

The six acute care hospitals within Catholic Health Services of Long Island are connected to the Healthix RHIO. Plans are in place to connect the owned and affiliate ambulatory practice to Healthix by the end of 2016. CHS has implemented real time clinical event notification and decision support such as real time ADT event notification and high utilizers of the system.

Catholic Health Services of Long Island has developed a proposed IT infrastructure roadmap in order to support DSRIP interoperability and clinical data sharing with its upstream and downstream partners, taking into account existing as well as future state requirements.
Figure 5: Proposed CHS IT Infrastructure for DSRIP

Figure 6: CHS Population Health Dashboard
Figure 7: CHS Registry Reports with Risk Scoring

Figure 8: CHS Patient Outreach Tracking

Figure 9: CHS Care Management Documentation
Northwell Health HUB Information Systems

An internal Health Information Exchange (HIE) platform was developed at Northwell Health to address the challenges of clinical data in multiple venues and the need to manage transitions of care across the continuum. The HIE is a single database with clinical information from across over 50 data sources (EMRs, Ancillaries, Billing systems, Claims systems and Registration systems). It provides a comprehensive view of a patient’s health status including diagnoses, orders, encounters, procedures, appointments, allergies, labs etc.
Figure 1 HIE Clinical Viewer – Comprehensive Patient Record

The HIE can address the needs for population health management through providing:

- Real time identification and management of high risk patients
- A single point of access for Comprehensive Patient Record across continuum - for care managers, call center nurses, Health home providers
- Notification of key patient events - E.g.
  - ED presentation for potential readmits
  - Patient Safety notification – Acute Kidney Injury
- Integration of providers across continuum through access to appropriate information as and when needed – E.g.
  - Discharge summary automatically sent to PCP
  - Urgi-Center EMR
CARE MANAGEMENT: Care Tool

Care Tool is a Web-based care management application that serves care coordination needs, including but not limited to, evidence based risk stratification, patient identification, document any interaction with patients, follow-up activities, and clinical assessment and initiating care plan interventions. Care Tool was built on top of the HIE platform which is used to send near real-time admission and discharge notifications to care navigators by receiving direct feeds from ED, inpatient and outpatient electronic health records.

Currently, Care Tool supports care management needs for the following programs: Medicare initiatives (Bundle Payment Care Management, Comprehensive Joint Replacement), Medicaid initiatives (Health Home) and Community Based Care Management.
Figure 3 Care Tool - Patient Identification
Identification of Patient Populations

Identifying priority target populations and plans for addressing their health disparities is a key function of the Population Health Management Roadmap. Medical care is only one of many factors that determine the health of an individual and thusly health of populations, determinants of population health, including the social determinants of health play a key role in identifying patient populations and designing specific plans to address their wide array of health disparities.

The Suffolk Care Collaborative (SCC) will conduct a hot spot analysis to identify geographical areas with high utilizers of health care and to better understand the characteristics of that population. This analysis will provide contextual information for developing strategies in how to best deliver care that is equitable, timely, effective and patient-centered.

A small percentage of the American population contributes to a large proportion of healthcare spending. An analysis performed by the Kaiser Family Foundation using data from the Agency for Healthcare Research and Quality quantified that 5% of the American population consumed 50% of total healthcare spending and are considered high utilizers of health care. SCC will
identify high utilizers of health care by geo-mapping data from the Statewide Planning and Research Cooperative System (SPARCS) database and data from the Salient Interactive Miner (SIM) to determine areas of high Medicaid utilization as well as areas of high prevalence with specific diseases.

Once communities with high utilizers of health care are identified, further analysis of the population will be performed to understand the regional characteristics of those communities. Analysis of the characteristics of the communities will include, but are not limited to: race, ethnicity, language, and socioeconomic factors. This data will contribute in planning targeted interventions to improve the health of the identified communities.

Healthcare asset mapping of the identified communities with high utilizers will also be conducted. Geo-mapping SCCs partners, and the type of services provided will be created to determine available resources for these communities as well as assess any gaps between available resources and community needs.

The areas produced from the hot spot analysis will provide actionable intelligence to develop strategies for improving the health of communities with high utilizers. Due to the multifaceted dimensions of these communities, various stakeholders will need to contribute to this study. These stakeholders will include SCC’s Project Management Office (PMO); SCC’s Community Needs Assessment, Cultural Competency and Health Literacy workgroup; SCC’s Care Management Organization; SCC’s Community Engagement workgroup; the Long Island Health Collaborative; and Stony Brook’s Biomedical Informatics department.

NYS Prevention Agenda Alignment
In addition to the DSRIP Program, New York State has embraced other opportunities to redesign the delivery systems and promote population-wide initiatives that make personal health an achievable reality for many more individuals. The New York State Prevention agenda is a call to action for state and local agencies to improve the health of New Yorkers in five priority areas, and to reduce health disparities amongst all populations who experience them, including racial, ethnic, disability, and low socioeconomic groups (NYSDOH, 2016b). The overarching vision of the Prevention agenda is to mold New York into the healthiest state in the Nation through the
focus on these five priority areas: prevent chronic disease; promote healthy and safe environments; promote healthy women, infants, and children; promote mental health and prevent substance abuse; and prevent HIV, sexually transmitted diseases, vaccine-preventable diseases and healthcare associated infections (NYSDOH, 2015b). The Agenda outlines goals for each priority area, defines indicators to measure progress towards these goals, and identifies interventions that have been demonstrated effective in reaching these goals (NYSDOH, 2015b).

In 2012, the New York State Department of Health conducted a state health assessment, and used this collected information to inform the development of the 2013-2018 agenda (NYSDOH, 2016a). Based upon this information, 58 Prevention Agenda objectives were selected for New York State to be tracked annually (NYSDOH, 2015a). Following the selection of these objectives, the New York State’s Public Health and Health Planning Council’s Public Health Committee established an Ad Hoc Committee, which further established 5 priority committees and 1 steering committee in order to develop priority specific action plans (NYSDOH, 2016a).

In Suffolk County, there is a specific prevention agenda that is being implemented county-wide by the local county health department, and Suffolk County Hospitals, including Brookhaven Memorial Hospital Center, Good Samaritan Hospital Medical Center, St. Catherine of Siena Medical Center, St. Charles Hospital, Eastern Long Island Hospital, Peconic Bay Medical Center, Southampton Hospital, John T. Mather Memorial Hospital, Huntington Hospital, Southside Hospital, and South Oaks Hospital (NYSDOH, 2016e). The table below describes the Prevention Agenda Priorities for each entity.

<table>
<thead>
<tr>
<th>Healthcare Entity</th>
<th>Preventing Chronic Diseases</th>
<th>Promote Mental Health and Prevent Substance Abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffolk County Department of Health</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Brookhaven Memorial Hospital Center</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Good Samaritan Hospital Medical Center</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>St. Catherine of Siena Medical Center</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>St. Charles Hospital</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Eastern Long Island Hospital</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Peconic Bay Medical Center</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Southampton Hospital</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>John T. Mather Memorial Hospital</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Huntington Hospital</td>
<td>✓</td>
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For both Prevention Agenda Priorities, there is a specific State Action Plan which outlines the intervention (NYSDOH, 2016d). For Preventing Chronic Disease Prevention Agenda Priority, the specific action plan introduces the focus areas, interventions by levels of Health Impact Pyramid, and interventions and activities by sector (NYSDOH, 2016c). This action plan has three focus areas: reduce obesity in children and adults; reduce illness, disability and death related to tobacco use and secondhand smoke exposure; increase access to high quality chronic disease prevention care management in both clinical and community settings. (NYSDOH, 2016c). The Promote Mental Health and Prevent Substance Abuse Agenda Priority specific action plan likewise introduces goals and objectives, and interventions by sector (NYSDOH, 2016e). This action plan has three focus areas: promote mental, emotional, and behavioral well-being in communities; prevent substance abuse and other mental emotional behavioral disorders; and strengthen infrastructure across systems (NYSDOH, 2016e). Additionally, and overview of Prevention Agenda Priority Interventions were provided.

<table>
<thead>
<tr>
<th>Healthcare Entity</th>
<th>Preventing Chronic Diseases -Interventions-</th>
<th>Promote Mental Health and Prevent Substance Abuse -Interventions-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffolk County Department of Health</td>
<td>• Increase participation in walking programs throughout Suffolk County &lt;br&gt;• Implement a Food Desert Program in collaboration with Island Harvest, Sustainable LI, SC Social Services, and SC Food Policy Council &lt;br&gt;• Improve awareness of the importance of nutrition and exercise in school aged children &lt;br&gt;• Increase awareness of obesity as a risk factor for Chronic Disease &lt;br&gt;• Develop training for allied health professionals on obesity screening, prevention and referrals &lt;br&gt;• Establish a worksite program at a major employer in Suffolk County, intended to improve diet and/or physical activity behaviors &lt;br&gt;• Increase the percentage of women that choose to breastfeed &lt;br&gt;• Maintain and expand ongoing partnerships with the Long Island Health Collaborative and academic institutions</td>
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### Population Health Management Roadmap

**IMPROVING PATIENT SELF-CARE, MORBIDITY PATTERNS & HEALTH CARE USE: A ROADMAP TO SUCCESS**

- Create Patient Advocacy Unit in the Division of Patient Care
- Prevent and reduce the number of opioid related deaths by increasing education and availability of Naloxone
- Engage in Office of Minority Health and Neighborhood Aide Program Activities to encourage access to care for chronic diseases
- Increase the inmate population awareness of the availability of the Criminal Drug Treatment Court Program
- Advocate for mental health consumers at various levels (state government, hospitals, community agencies, etc) to ensure access to care for pediatric psychiatric patients that would be unable to utilize Sagamore inpatient services when they close
- Study the spread of tick and vector-borne related diseases, and to develop a comprehensive needs assessment given the County’s approach to this public health and safety issue

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Activities</th>
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</table>
| Brookhaven Memorial Hospital Center | - The hospital is a site for the Suffolk County DOH Diabetes Prevention Program  
- The hospital has a Diabetes Wellness Center  
- Focus on obesity and diabetes information distribution by the hospital's various locations  
- Study the spread of tick and vector-borne related diseases, and to develop a comprehensive needs assessment given the County’s approach to this public health and safety issue |
| Good Samaritan Hospital Medical Center | - 10 week weight management program for children at a middle school, Annual nutrition seminar, Web-based education  
- Make information available about community mental health resources |
| St. Catherine of Siena Medical Center | - Screening and referral to weight loss programs speaker’s bureau of hospital staff health fairs  
- Free blood pressure and glucose screenings; free lectures and community events to educate about chronic disease prevention and management  
- Disseminate information on mental health services provided by the Catholic Health Services system |
| St. Charles Hospital | - Development of a healthy lifestyle program to be provided in schools  
- Disseminate information on mental health services provided by the Catholic Health Services system |
| Eastern Long Island Hospital | - Promote and provide National Diabetes Prevention Program (NDPP) via partnership with Suffolk County Dept of Health and NYS QTAC  
- Partner with Retired Senior Volunteer Program to bring the Chronic Disease Self Management Program (CDSMP) to local community settings |
<table>
<thead>
<tr>
<th>Organization</th>
<th>Goals</th>
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<tbody>
<tr>
<td>Peconic Bay Medical Center</td>
<td>• Establish a Project Fit America program in the Riverhead School District</td>
</tr>
<tr>
<td>Southampton Hospital</td>
<td>• Increasing the availability, accessibility and use of evidence-based interventions in self-care management in clinical and community settings</td>
</tr>
<tr>
<td></td>
<td>• Complete needs assessment regarding mental health services and take steps to address gaps in service</td>
</tr>
<tr>
<td>John T. Mather Memorial Hospital</td>
<td>• Increasing the availability, accessibility and use of evidence-based interventions in self-care management in clinical and community settings</td>
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<td></td>
<td>• Hospital will educate and prepare parents of school children to assist in the &quot;identification and understanding of drugs&quot; in the community</td>
</tr>
<tr>
<td>Huntington Hospital Southside Hospital</td>
<td>• Increasing the availability, accessibility and use of evidence-based interventions in self-care management in clinical and community settings</td>
</tr>
<tr>
<td>Southside Hospital</td>
<td>• Participate in NYSDOH Latch on Program and Baby Friendly Hospital Programs</td>
</tr>
<tr>
<td>South Oaks Hospital</td>
<td>• Participate in NYSDOH Latch on Program and Baby Friendly Hospital Programs</td>
</tr>
<tr>
<td></td>
<td>• Promoting NYS Smokers’ Quitline</td>
</tr>
<tr>
<td></td>
<td>• Promoting smoking cessation benefits among Medicaid beneficiaries</td>
</tr>
<tr>
<td></td>
<td>• Promoting smoking cessation among people with mental health disabilities through partnerships with the NYS Office of Mental Health</td>
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<tr>
<td></td>
<td>• Adopting tobacco-free outdoor policies</td>
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<tr>
<td></td>
<td>• Increasing adoption and use of food standards</td>
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<tr>
<td></td>
<td>• Promoting of policies and practices in support of breastfeeding</td>
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Many of the efforts put forth through the Delivery System Reform Incentive Payment (DSRIP) Program mirror those of the Suffolk County Prevention Initiative. Specifically, they most closely align with the objectives of Project 4aii, Substance Abuse Prevention and Identification Initiatives, and 4bii, Access to Chronic Disease Preventive Care Initiatives. The Suffolk Care collaborative will work to align the DSRIP project activities and goals with those of the Prevention Agenda in order to provide for greater support of these public health initiatives.

DSRIP Project 4aii, Substance Abuse Prevention and Identification Initiatives, aligns with the Suffolk County Prevention Agenda Priority area of Promoting Mental Health and Preventing Substance Abuse. Project 4aii is geared towards the reduction in use of substances such as alcohol, drugs, and tobacco in Suffolk County. The project focuses on three primary areas of
action: Screening, Brief Intervention, and Referral to Treatment (SBIRT); Suffolk County Tobacco Cessation Initiative; and Underage Drinking Prevention Initiative.

The first arm of this program is the Screening, Brief Intervention, and Referral to treatment, or SBIRT. SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders. The Suffolk Care Collaborative is partnering with 11 hospitals in Suffolk County to train their Emergency Department staff in SBIRT, and fully incorporate the screenings into their daily operations. The immediate goal of this program is to implement the program at the hospitals for patients 13 years of age or older, and the long term goal is to connect patients with treatment for substance use/abuse and reduce the incidence of substance misuse in the County.

The second arm of the 4aii program is the Suffolk County Tobacco Cessation Initiative. This initiative partners with the Office of Mental Health (OMH) and community-based cessation programs in Suffolk County to implement a tobacco cessation patient and provider education initiative. The primary goal of this project is to reduce tobacco use among adults who report poor mental health. This goal will be moved forward through implementing tobacco-free regulations at participating OHM facilities, and implementing evidenced based smoking cessation practices at participating OMH facilities.

The third arm of this project is the Underage Drinking Prevention Initiative. This initiative partners with Community Based Organizations to operationalize drinking prevention services in the Bellport, NY community. This initiative will address behaviors that drive alcohol and drug abuse, and will promote positive changes in community attitudes and behaviors. The SCC is partnering with the Prevention Resource Center (a division of Family Service League) to design and implement an underage drinking prevention program in the South Country School District.

DSRIP Project 4bii, Access to Chronic Disease Preventive Care Initiatives, aligns with the Suffolk County Prevention Agenda Priority area of Preventing Chronic Disease. The project objective of 4bii is to focus on access to high quality chronic disease preventive care and management in
both clinical and community settings. There are 4 initiatives that comprise this project: Lung Cancer Screening Initiative; Breast Cancer Screening Initiative; Colorectal Screening Initiative; Obesity Prevention Initiative; and Tobacco Screening Initiative.

The Lung Cancer Screening Initiative is one of three focus areas involving cancer screenings. The first goal of this project is to identify Suffolk County residents who are at risk for lung cancer through pre-screening initiatives in an effort to connect patients who meet screening criteria to available services. The second goal of this project is to promote early detection of lung cancer through current screening programs in an effort to increase the percentage of patients (who meet criteria for screening) who complete the screening process, and decrease time from identification of need to completion of the lung cancer screening.

The Breast Cancer Screening Initiative is the second focus area involving cancer screenings. Much like the Lung Cancer Screening Initiative, the breast cancer project goals are to identify Suffolk County residents who are at risk for breast cancer through pre-screening initiatives in an effort to connect more patients who meet screening criteria to available services, and to use evidence-based recommendations to identify those who are at risk and eligible for breast cancer screening. To identify eligible persons in need of breast cancer screening, the SCC will collaborate with community health centers, the Suffolk County Cancer Services Program, and other community groups. For those who are identified as clinically eligible, they will be referred to local breast cancer screening resources. Additionally, providers will be educated to increase awareness of screening guidelines.

The Colorectal Cancer screening Initiative is the third and final focus area involving cancer screenings. The immediate goal of this project is to increase knowledge among patients 50 years of age and above on colon cancer screenings in participating primary care settings. The long term goal of this project is to increase colon cancer screening rates among adults 50 years of age and older. To increase patient knowledge and increase screening rates, providers who are part of the patient care team will educate patients 50 years of age and older on colon cancer screenings, using the USPTF guidelines.
In addition to cancer screenings, the Obesity Project is another primary thrust of the 4bii project. The immediate goal of the Obesity Project is to develop a resource guide to support facilitation of access to programs which support Suffolk County residents’ adoption of health eating and physical activity habits and maintain a healthy weight. The long term goal of this project is to create community environments that promote and support healthy food access, food and beverage choices and physical activity (in locations including worksites, corner stores, schools, and parks/recreational facilities) by supporting agencies in Suffolk County working towards these goals with other funds. Such support includes facilitating promotion of events and increased awareness of positive changes in the built environment or in policies.

The third and final focus of the 4bii project is the Tobacco Cessation Initiative. The immediate goal of this project is to screen patients 18 years of age and older in participating primary care settings and participating OMH licensed facilities for tobacco use and connect to assistance for smoking dependence. The long term goal of the project is to reduce the prevalence of tobacco use in the County. The interventions for this project include implementing the 5A’s of tobacco dependence intervention among providers, and connecting patients who express an interest in quitting with the NYS Quitline and patient care team, including care management, to ensure adequate follow up and patient navigation.
Team Based Interventions & Care Team Coordination

Risk Stratified Care Coordination across the Continuum

The objectives of the SCC Care Coordination Model are:

- To build a patient-centered, coordinated network in order to improve the delivery of healthcare in Suffolk County.
- To support Medicaid beneficiaries in their health management by providing appropriate levels of support based upon need without creating duplication in services.
- To offer whole person approach to a patient’s care needs and deliver these needs in an efficient, safe and high quality manner.
- To educate and engage our providers in community and population health sciences.
- To ensure that patients receive appropriate health care and community support, including medical, behavioral health, post-acute care, long term care and public health services.
- To eliminate health disparities and improve measureable health outcomes through sustained community and organizational partnerships.

The Suffolk PPS Care Coordination Model is one that facilitates communication between the patient and all members of their health care team. Care Coordination offers a whole person approach to a patient’s care needs and delivers these needs in an efficient, safe and high quality manner. Coordination of care ensures that patients receive the right care at the right time with the right provider through high-quality referrals, navigating transitions to and from providers and care settings, and providing culturally and linguistically appropriate care to all.

Through Care Coordination, patients may have improved self-efficacy and self-management of their disease process. Care can be coordinated by any and all members of the healthcare team. In order to successfully manage a population of patients, risk stratification is used to determine those patients most at need for services and closely coordinated care. Risk can be based on chronic disease, per member per month spend on healthcare, and current and past utilization of services. The use of risk stratification and registries, allows care managers to focus on those patients with a high likelihood of getting sicker over time. This type of predictive risk modeling
is called prospective risk scoring and this is the tool being deployed for use throughout the Suffolk County PPS.

Reference: Care Coordination: Core Principles and Basic Elements (December 1, 2015)

Each HUB has established a Care Management Organization that provides one to one support for high risk patients via trained professionals that work collaboratively with primary care providers and assist patients in achieving optimal health outcomes while mitigating barriers to care. The PPS has also developed a Care Management and Care Coordination Workgroup which meets quarterly. This Workgroup is charged with creating strategies for implementation of a coordinated care model across the care continuum for Suffolk County patients. Deliverables of this Workgroup include but are not limited to:

- Utilizing and coordinating with Health Homes and ACO population management systems in order to implement a strategy towards evolving in an IDS.
- Ensuring that patients receive appropriate health care and community support.

Reference: Suffolk Care Collaborative Care Management and Care Coordination Workgroup Charter (February 3, 2016)

Evidence Based Care through Clinical Improvement Programs

Through the work of the SCC’s Clinical Improvement Programs, specifically the Diabetes Wellness & Self-Management Program, the Cardiovascular Health Wellness & Self-Management Program, the Promoting Asthma Self-Management Program, and the Primary & Behavioral Health Integrated Care Program, Clinical Guideline Summaries (“summary”) have been developed and approved. Key internal program stakeholders, participating on each DSRIP Project Committee and Workgroup has collaborated on a summary, which acts as a guide for providers participating in the programs. Each summary is based on evidence based practice guidelines that are nationally recognized standards of care. They are considered the accepted minimum standard of care and meant to enhance and improve patient outcomes. Click here to access all Clinical Guideline Summaries.
Best Practice Care Redesign Methods: PCMH Practice Transformation

The Patient Centered Medical Home (PCMH) is at the forefront of transforming the delivery of primary care in a model that is patient centered. Developed by primary care medical societies, it has become a widely adopted model of care. PCMH facilitates a team based approach to care: provider-led care teams where physicians, nurse practitioners and other professionals work with their staff managing the health needs of the patient. The members of the care team may include nurses, social workers, care managers, medical assistants, front office staff and others; and it will always consist of the patient and their families as integral members of the care team.

PCMH provides the framework for change management. Expanding the primary care team and clearly defining roles, responsibilities and workflow redesigns creates the opportunities to meet the chronic, acute and preventative care of patient populations. PCMH supports the development of care coordination activities that can be performed by non-provider professionals. In this setting the care team works to the highest capability of license or scope of practice; an approach vastly different from the way healthcare has been provided in the past.

PCMH promotes effective communication and the use of health information technology. The care team has access to the latest health information and patient registries. Involving the care
team in previsit planning, daily huddles; alerts and patient communications that minimize tasks; setting performance measures to monitor the care team’s effectiveness, as well as care team and patient feedback strengthens the team based approach. Care managers have a significant impact on the PCMH model. Through care management and support, patients with high risk conditions or diseases are identified, gaps in care can be analyzed; and care plans and self-care support tools and materials are developed.

PCMH model of care has demonstrated the ability to improve the team based approaches to care and allows providers more time to focus on managing the patient’s health; engages all members of the health care team, including the patient, to contribute to the health of the patient; and emphasizes population health management.

Plans for achieving PCMH 2014 Level 3 Certification in engaged/contracted provider sites, including training and learning opportunities to educate providers on PCMH:

The Suffolk Care Collaborative (SCC) Patient Centered Medical Home (PCMH) Certification Workgroup developed the PCMH Strategy Plan (the “Plan”). The Plan provides guidance and support to primary care practice partners in the SCC Performing Provider System (PPS) partner network to successfully achieve National Committee for Quality Assurance (NCQA) recognition as a 2014 PCMH Level 3. The Plan provides the framework and plan for achieving this PCMH recognition. This includes the HUB-specific description of engaging PCMH transformation experts and their plan for transformation; developing processes to track and monitor progress towards recognition; a validation of recognition process; and ongoing training and educational sessions to ensure compliance and sustainability of the PCMH Standards. The roles and responsibilities of the PCMH Certification Workgroup are further described in the Plan.

*Reference: SCC Patient Centered Medical Home (PCMH) Strategy (March 7, 2016)*

Preventable Events

In a New York State Department of Health report published in 2015, it was stated that “the majority of ER visits were for clinical conditions that could have been treated or prevented through access to high quality primary care settings”. Preventable events are categorized as
those diseases or events that result in ED visits and/or hospitalizations that could have been treated or otherwise managed in an outpatient setting. Proactive approaches to high risk patient identification and subsequent management, paired with point of care evidenced based treatment and supported by procedures on how to care for these identified patients, will lead to a decrease in the need for a patient to enter an ED with a potentially preventable event. The SCC has developed two such programs that will ultimately have an impact on our ability to manage this population of patients.

The SCC’s Interventions to Reduce Acute Care Transfers (INTERACT) Program and Transitions of Care Program for Inpatient & Observation Units specifically monitors preventable events through a number of strategies.

Through the INTERACT Quality Improvement Program, there are specific Quality Improvement Tools that the Skilled Nursing Facilities will be using within their Quality Committees. They will be tracking unplanned transfers every month as well as using quality improvement tools from the INTERACT Program to review acute care transfers to determine if they were preventable. The Quality Committee within the SNF will identify opportunities for quality improvement, use rapid cycle improvement methodologies, develop implementation plans based on findings, and create clinical quality improvement action plans.

SCC, in conjunction with subject matter expert, Dr. Amy Boutwell, developed a PPS wide strategy to improve patient transitions from hospital to post-acute settings. This model, the Transitions of Care Model, was contributed to and agreed upon by all members of the Committee which includes representation from all eleven hospitals in the PPS. The Transitions of Care Model calls for the real time identification of high risk patients upon registration in a hospital. High risk is defined as any Medicaid patient that has any of the following risk factors:

- Readmission within 30 days of prior discharge
- Personal history of 3 or more hospitalizations (inpatient or observation) in the past 12 months
- And/or any behavioral health comorbidity
The flagging of a high risk patient then results in the completion of a social needs screen. This screen will indicate the need for referral to a Transitions of Care provider. Other elements of the Transitions of Care Model include early notification of patient and partners of planned discharge, provision of a written transitions of care plan (patient self-education written at an appropriate health literacy level, a reconciled medication list and a follow up appointment), timely completion of the discharge summary, and initiation of a 30-day Transition of Care Period with PCP updates. The creation of this Model allows for effective Community-based navigation to resources, Health Home Navigation for eligible patients, and Primary Care Practitioner navigation to effectively manage a patients’ ongoing medical needs and minimize gaps in care.

Hospitals participating in the Transitions of Care Program have created implementation teams to implement and monitor the SCC’s Transition of Care Model. These teams will meet on a recurring basis to monitor and review readmissions to determine if they were preventable. Strategies will be developed within these implementation teams to improve outcomes. Members from the implementation team will also participate in monthly Learning Collaborative meetings where members from all PPS hospitals will come together to share best practices and challenges.

Reference: Transition of Care Model (March 30, 2016)

Physician Communications & Engagement Methods

The Practitioner Communication and Engagement Plan for the Suffolk Care Collaborative (SCC) provides a foundation for practitioner engagement efforts and a framework to guide future engagement activities. The purpose of the plan is to provide a clear pathway for practitioners to have a voice in the planning and delivery of transformative health care services to SCC stakeholders so that the best possible patient outcomes are achieved now and in the future. A toolkit of materials to educate/inform practitioners about the DSRIP program, the SCC DSRIP project portfolio and PPS performance, as well as an outreach and education plan to reach practitioners has been developed. In addition, the SCC has established an onboarding program for all contracted partners to assure a consistent approach to their orientation to the SCC and engagement in the DSRIP projects.
Reference: *Practitioner Engagement and Communication Plan (January 8, 2016)*

Patient Engagement

Successful Population Health Management relies on the engagement of patients in the given population being served. The SCC has a number of strategies for engaging patients in their healthcare. These engagements are focused on empowering patients by giving them the tools and support required to optimize their healthcare. The goal is to promote self-management of disease processes and to increase accountability for one’s own care. This can be ultimately achieved through work on several programs operating throughout the PPS.

Examples of patient engagement strategies include but are not limited to, direct outreach through the SCC Care Management Organization, identification, surveying, and subsequent coaching and navigation of patients with the Patient Activation Measure tool through our Community Health Activation Program (CHAP), discussion and documentation of patient self-identified goals through our Cardiovascular Health Wellness and Self-Management Program, screening and brief intervention of patients with ED visits through our SBIRT program, and high risk identification and referral to transitional care management via Care Management or Health Homes through our Transitions of Care Model.
Measuring Outcomes

In order to effectively measure and monitor health outcomes, health status and cost, the SCC has developed a Performance Monitoring and Improvement Plan for use in the network. This plan uses a rapid cycle evaluation strategy which is supported through the organization’s structure, data collection, analysis and monitoring process and two-way flow of communication between the Board of Directors and all stakeholders. The data collected from the coalition partners is used to monitor the stability of existing processes, identify opportunities for improvement, identify changes that lead to improvement and/or sustain improvement and is used as the foundation for the coalition partner’s pay-for-reporting and pay-for-performance compensation model. Data will be used at a person and population level through the care management program to enable outreach to individual beneficiaries and providers to continuously identify hot spots in need of greater resources of different interventions.

Data will be aggregated and analyzed by the organization in such a way that current performance levels, patterns or trends can be identified. The organization will utilize appropriate statistical tools and techniques to analyze and display data. When appropriate, data will be trended and compared internally over time as well as to external benchmarks. Performance dashboards that include all measures of success will be created for providers, then each Project Team, then rolled-up into specific Governance Committee (Clinical/IT/or Financial), and then to a Board level dashboard for which the PPS Board will have ultimate oversight. Areas of variation in clinical results or provider performance will initially be addressed by each Health System (HUB) with support from Project Committees and oversight by the Clinical Committee.

Reference: Performance Reporting and Improvement Plan (August 27, 2015)
Conclusion

Population Health Management is the key to a future in accountable care. By investing in information systems, utilizing robust technology applications to continually identify, assess and stratify patient populations, our network can leverage data to enable/facilitate care teams to manage patients more efficiently and effectively. By doing so, we hope to drive better outcomes, measure these outcomes and design quality improvement and performance reporting measurement plans to ensure sustainability. Further, we endeavor to meet the requirements of the Triple Aim Initiative; improve the patient experience of care, reduce the per capita cost of healthcare, and improve the health of populations.
References


