

# POPULATION HEALTH CURRICULUM GUIDE

Introducing Population Health Concepts to  
Frontline Staff, Providers, and Partners

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# INTRODUCTION

GNYHA is pleased to distribute this *Population Health Curriculum Guide: Introducing Population Health Concepts to Frontline Staff, Providers, and Partners*, as part of its continued support of member hospitals and health systems as they increasingly shift to population health models. Population health is a cornerstone of the New York State Department of Health's (DOH) Delivery System Reform Incentive Payment (DSRIP) program, a five-year program that aims to reduce avoidable hospitalizations among Medicaid consumers by 25%. As part of DSRIP, performing provider systems (PPSs) made up of hospitals, skilled nursing facilities, home care agencies, federally qualified health centers, community-based physicians, community-based organizations (CBOs), and other stakeholders, must create integrated delivery systems, develop communications tools and workflows, and proactively care for large patient panels. All of these activities are important pieces of population health.

While DSRIP has accelerated this process, the drive to population health among major components of the New York health care delivery system began earlier with a variety of initiatives that encouraged this more holistic approach. One major initiative began in 2008, when New York's primary care practices began adopting the National Committee on Quality Assurance's (NCQA) Patient-Centered Medical Home (PCMH) model, which requires practices to demonstrate population health capabilities. While earlier NCQA PCMH programs focused on internal practice functions, newer iterations of the model have expanded focus to health care and social service organizations, which contribute to holistic, wrap-around care for patients. This expanded focus requires workers outside of the primary care practices to understand population health and their important role in helping patients receive care in the most appropriate and cost-effective setting.

DSRIP has a significant workforce training component, where performing provider systems (PPSs) must ensure that the incumbent and incoming workforce must understand these new models of care. PPSs can use the materials and resources in this curriculum guide to develop their own trainings on population health for their partner organizations.

## **HOW TO USE THIS DOCUMENT**

The content in this guide can be used by PPSs, hospitals, and other organizations to develop training programs and related materials on the topic of population health.

The guide is organized into four sections, each with learning objectives, related content, recommended learning activities for individuals being trained, and an unfolding case study that uses patient, provider, and care team examples to demonstrate population health activities and their effect on all stakeholders.

This guide includes appendix items that can serve as tools for organizations as they develop and teach population health practice. In addition, this guide includes a glossary of population health terms and additional resources to support learning on this topic.

## **ACKNOWLEDGEMENTS**

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## SECTION ONE

# THE CONTEXT FOR POPULATION HEALTH

### LEARNING OBJECTIVES

- ✔ Define “population health”
- ✔ Differentiate “population health” from “public health” and “community health”
- ✔ Describe the current challenges in the US health care system that were the impetus for moving towards population health models
- ✔ Describe the Triple Aim and why it is important to broader health care initiatives
- ✔ Describe initiatives being undertaken across the country to achieve the Triple Aim

### DEFINING POPULATION HEALTH

Population health is defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group.<sup>1</sup> The term was coined in 2003, but is a preexisting concept that takes into consideration the overall health and health outcomes for populations, as well as the social and economic disparities that affect the health of individuals or a population. When put into practice in a health care setting, population health views patients both as individuals and as members of a broader population. Organizations that adopt population health practices provide proactive patient support and outreach to prevent exacerbation of issues, diseases and conditions, and ensure that individuals receive the appropriate level of care at the right time in the setting that most appropriately meets their needs.

#### Differentiating Population Health, Community Health, and Public Health

While the terms “population health,” “public health,” and “community health” share some commonalities, these terms are distinct and should not be used interchangeably.

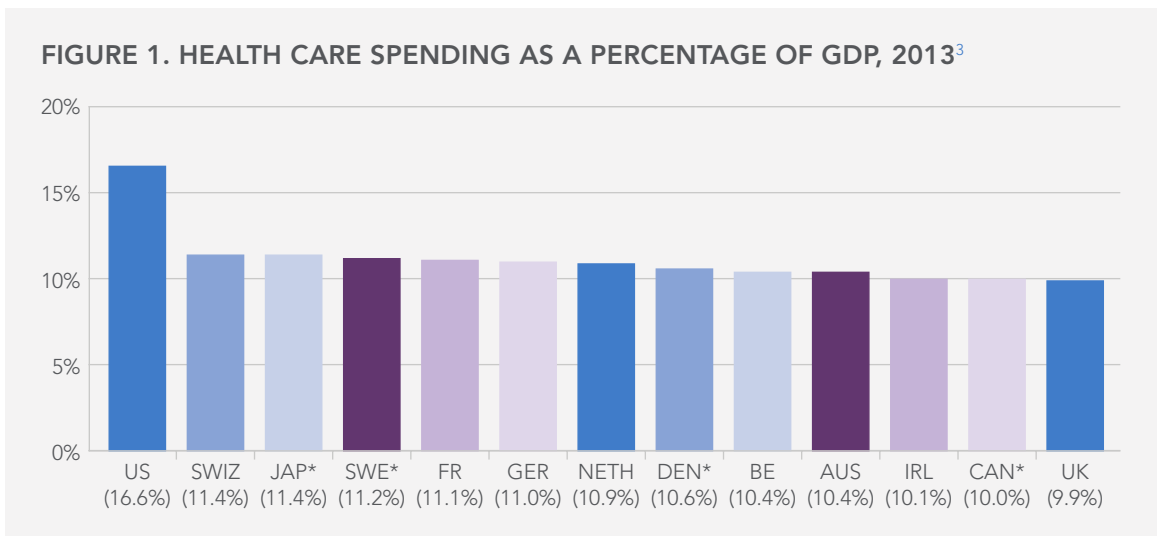
Public health includes any organized measures to prevent disease, promote health, and prolong life among entire populations. Public health often includes public policies and large-scale programs on health and wellness promotion. They can be disease-specific or generally related to health.

<sup>1</sup> What is Population Health? American Journal of Public Health. David. Kindig, G. Stoddardt, March 2003.

Community Health is a field within public health dealing with the health of a population within a local geography. Typically there is a strong focus on social interventions, and activities can take place as part of a larger public health initiative or can be neighborhood or region-specific.

### THE MOVE TOWARD POPULATION HEALTH MODELS

Both in the United States and in New York, there is a movement towards population health models of care, in large part, to address the high costs of health care. The US spends 17% of the gross domestic product (GDP) on health care, which is significantly higher than other countries (Figure 1). Data shows that the US health care system is the most costly in the world, with health care spend projected to rise through 2020.<sup>2</sup>



\* Data is provisional, estimated or encompasses a time series break.

The spend increase can be attributed to a number of challenges in the health care environment, including:

- An aging population and a population that is living longer
- Increasingly complex diseases and conditions
- A fragmented health care system where care is provided in many different settings that do not communicate
- A health care payment system that is, in many cases, a “fee-for-service” (FFS) system that reimburses for the number of visits and not the quality of care

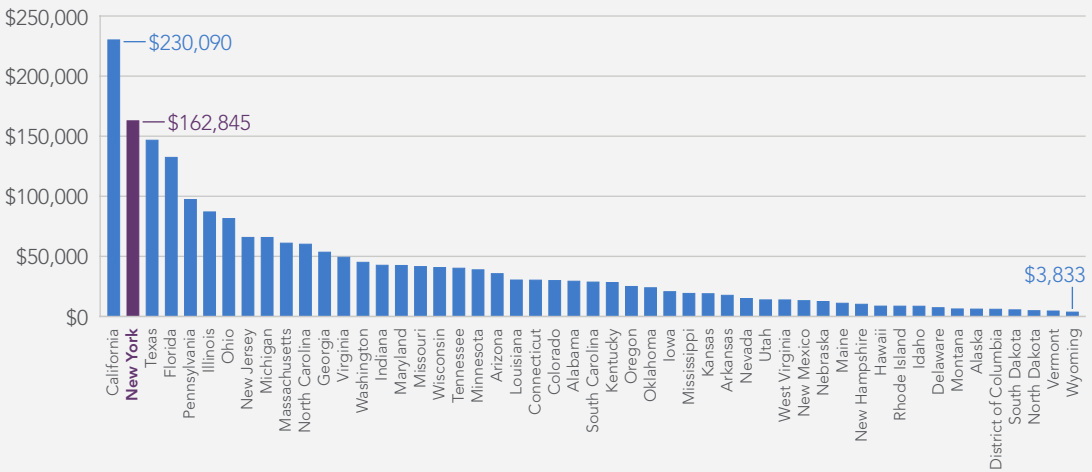
<sup>2</sup> National Healthcare Expenditure Projections, 2010-2020. Centers for Medicare & Medicaid Services, Office of the Actuary

<sup>3</sup> Organisation for Economic Co-Operation and Development - Health Expenditure and Financing Data. Last updated October, 2016. Accessed March 9, 2017.

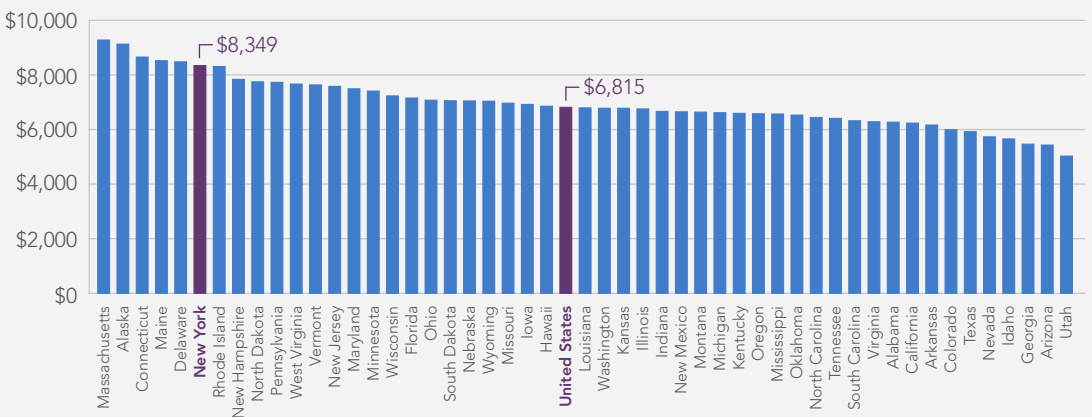
**SECTION ONE** (continued)

There is a similar trend in New York State, where health care expenditures are among the highest in the nation. New York’s total health care spend ranks second in the U.S. (Figure 2). New York’s cost of care per individual, which excludes research, public health activity, and other administrative costs, is the sixth highest in the nation (Figure 3). New York’s health care costs are projected to rise by 53% through 2020 (Figure 4).<sup>4</sup>

**FIGURE 2. HEALTH CARE EXPENDITURES BY STATE OF RESIDENCE (IN MILLIONS), 2009<sup>5</sup>**



**FIGURE 3. PER CAPITA PERSONAL HEALTH CARE EXPENDITURES, 2009<sup>6</sup>**

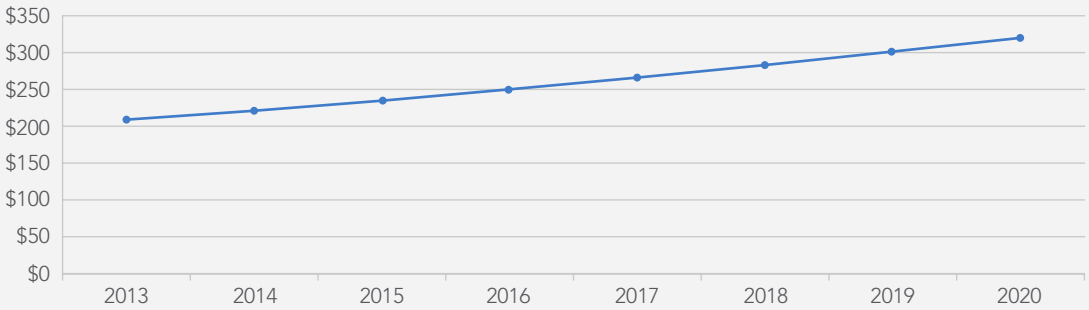


<sup>4</sup> Health Care Costs and Spending in New York State, New York State Health Foundation, February 2014.

<sup>5</sup> Centers for Medicare & Medicaid Services, *Health Expenditures by State of Residence*, 2011.

<sup>6</sup> Centers for Medicare & Medicaid Services, *Health Expenditures by State of Residence*, 2011.

**FIGURE 4. PROJECTED NEW YORK SPENDING (IN BILLIONS), 2013–2020<sup>7</sup>**

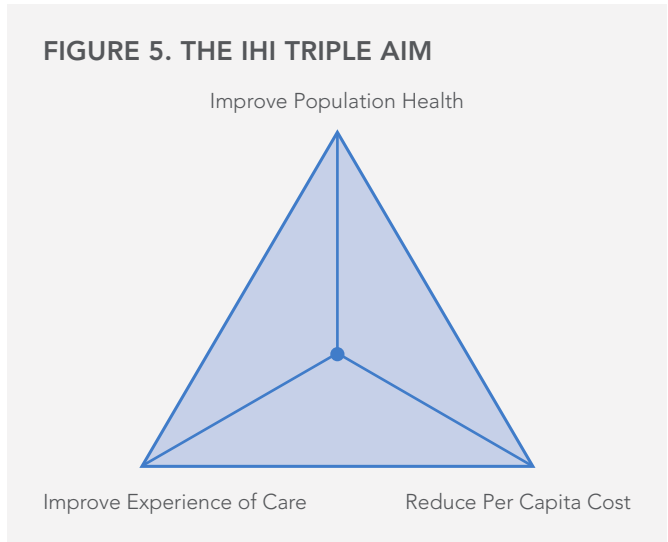


**POPULATION HEALTH AND THE FRAMEWORK FOR LARGE-SCALE HEALTH IMPROVEMENT**

To address the rising health care costs and related challenges, the Centers for Medicare & Medicaid Services (CMS), and many public agencies, hospitals, and health systems across the country have adopted the Institute for Healthcare Improvement (IHI) Triple Aim (Figure 5), a framework for large-scale health improvement. The Triple Aim includes the following elements, which must be achieved concurrently:

- Improve population health (improving the health of populations)
- Improve experience (improving individual outcomes)
- Decrease per capita cost (cost of care per individual)

The framework is challenging to follow, as it includes implementing organizational policies and procedures as well as local workflow changes. Examples of organizational policies and procedures may include changes to contracting that modify how providers are reimbursed or the development of system-wide quality improvement programs to measure and improve upon targeted metrics. Local workflow changes may include new processes for capturing patient information or implementing new tools and resources.



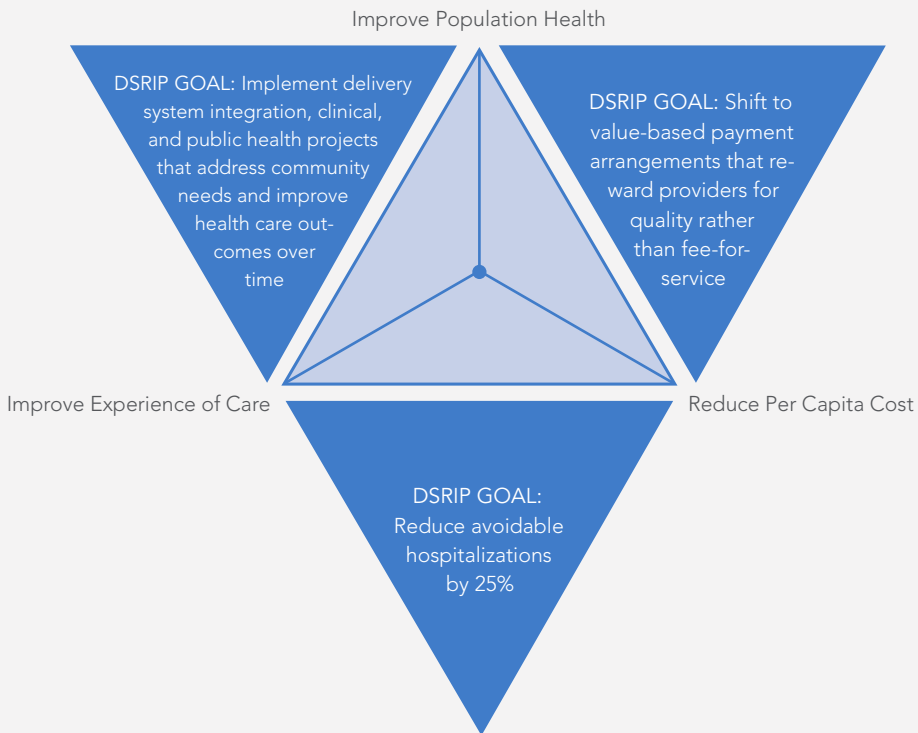
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<sup>7</sup> The Lewin Group for the New York State Health Foundation, “Bending the Health Care Cost Curve in New York State: Options for Saving Money and Improving Care,” July 2010.



New York’s Delivery System Reform Incentive Payment (DSRIP) program is a prime example of an effort to achieve the Triple Aim (Figure 6). DSRIP is a five-year program which primarily aims to reduce avoidable Medicaid hospital utilization by 25%. This goal corresponds to the Triple Aim’s goals to improve the experience of care and reduce per capita costs. DSRIP requires the participating organizations to integrate while implementing clinical and public health projects that address community needs while improving health care outcomes over time. This corresponds with the Triple Aim’s goals to improve the experience of care and population health. Finally, DSRIP requires participants to shift to value-based payment (VBP) arrangements that reimburse providers for quality care, rather than the number of services provided. This corresponds to the Triple Aim’s goals to improve population health and reduce per capita costs.

**FIGURE 6. NEW YORK’S DSRIP PROGRAM IS A PRIME EXAMPLE OF TRIPLE AIM**



By implementing projects and programs that align with the Triple Aim framework, providers are moving towards a health care system that uses population health practices to proactively ensure that individuals receive the right care at the right time in the right setting.



## DEFINING VALUE-BASED PAYMENT (VBP)

Today, many health care providers are reimbursed under FFS payment arrangements, which provide a payment to the provider for specific services. For example, a primary care provider could receive a payment from an insurer for a well-visit and a vaccination. A hospital could receive a payment for an inpatient stay, and subsequently receive a payment for an emergency department (ED) visit a few weeks later. This method of reimbursement does not incentivize providers to tend to their patients outside of the health care or office setting.

VBP arrangements incentivize providers and health care organizations to increase the overall quality of care and improve upon health outcomes, moving away from the episodic care that is typical in a fee-for-service setting. There are many payment arrangements that providers or health care organizations can make with insurers that constitute VBP. Some examples are:

**Bonus Payments for Quality:** Insurers provide FFS payments, but can also offer bonus payments to providers that demonstrate quality care. This typically involves the insurer selecting particular quality or outcomes metrics and providers meeting or exceeding a particular threshold that demonstrates good performance.

**Capitation:** A provider or organization may receive a “per patient/per month” payment from an insurer that may be used to provide any services that are necessary. If the provider or organization spends less than that amount, the savings belong to that provider or organization.

**Shared Savings:** Insurers and providers can develop shared savings arrangements, whereby the providers work to decrease the overall health care costs of a particular population. An example of this is the Medicare Shared Savings Program, administered by CMS. More information in this can be found here: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/index.html?redirect=/SharedSavingsProgram>

DOH developed a DSRIP Whiteboard Presentation on VBP, which can be found here: [https://www.youtube.com/watch?v=WHluV\\_LWcIq](https://www.youtube.com/watch?v=WHluV_LWcIq)

## RECOMMENDED LEARNING ACTIVITIES

- Research a CMS project from another state and ask trainees to describe how the project goals correspond to the Triple Aim. Project examples include:
  - Accountable Health Communities project
  - Community-Based Care Transitions Program
  - Next Generation Accountable Care Organization programs
  - Partnership for Patients
  - State Innovation Model projects

Most of these initiatives include projects that apply to multiple health care stakeholders, including hospitals, ambulatory care, post-acute care, and community-based organizations (CBOs). More information can be found in the CMS Innovation Center website: <https://innovation.cms.gov/>.

- Ask training participants to describe efforts within their own organizations that fit into the Triple Aim framework.

## CASE STUDY

*Meet Juan, Maria, and Alex, and follow their experiences through health care at community-based organizations that are implementing population health practices.*

Juan is a 52-year-old male with complex health conditions. He has Type 2 diabetes and congestive heart failure diagnoses. He recently lost his job of 25 years, and is at risk of being evicted from his apartment. He is a frequent visitor at the two hospital EDs located in his neighborhood.

Maria is a 26-year-old single mother of two children who holds a full-time job at a restaurant. Maria does not have any diagnosed health issues, but her 8-year-old daughter has asthma. Her children receive primary care services at a hospital-based clinic.

Alex is a 31-year-old LGBTQ individual living with HIV. He exhibits a number of high risk behaviors, including frequent drug use. He receives primary care and case management services from a CBO that specializes in services for individuals living with HIV/AIDS.

After each section of this curriculum, reflect upon the components of the Triple Aim that correspond to the providers and organizations involved in each case.

## SECTION TWO

# ORGANIZATIONS IN A POPULATION HEALTH MODEL

### LEARNING OBJECTIVES

- ✔ Describe the different settings where health care can take place, and the types of individuals or conditions that are typically cared for in those settings
- ✔ Describe the medical neighborhood and the roles of the organizations typically represented
- ✔ Define characteristics of an integrated delivery system

### SETTINGS WITHIN THE CARE CONTINUUM

Health care can be delivered in a variety of settings, each of which has an important role in a population health model. These settings make up the care continuum.

#### Acute Care Setting

This setting delivers care to the sickest individuals needing the most complex care. It includes inpatient and emergency departments (ED).

#### Ambulatory/Outpatient Setting

This setting delivers preventive, elective, or episodic care. It includes primary, specialty, and behavioral health care, and it can include hospital-based or community-based medical providers. Note that there are ancillary health care services that may be provided in both the acute care and ambulatory settings, such as radiology, laboratory, and other diagnostic procedures.

#### Post-Acute

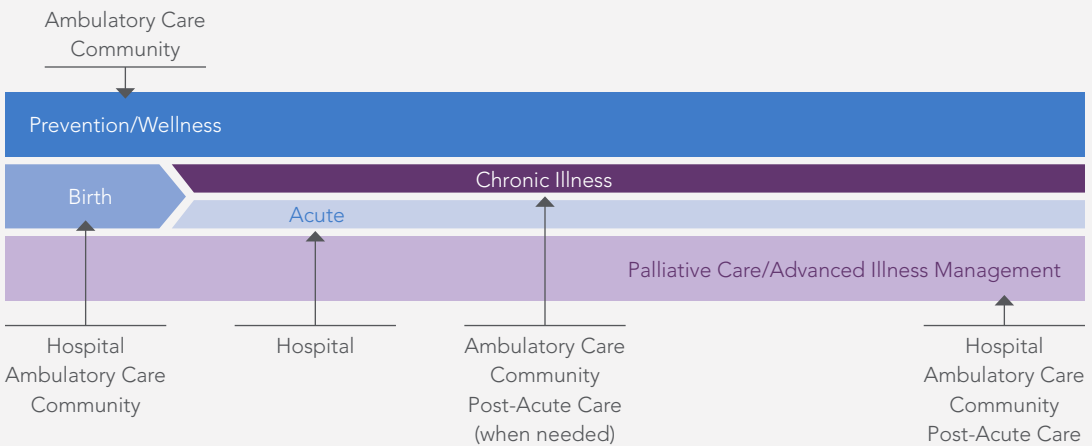
This setting delivers care after a patient has been discharged from the acute care setting. In some cases, patients can be referred to post-acute care services based on a condition or need identified in the acute or ambulatory setting. It includes skilled nursing, long term care, and home health. While post-acute services can be end-of-life services, they can also be delivered at any point where the patient develops a need.

Community

This setting delivers a variety of services that can be offered by many different types of organizations. It includes, but is not limited to, schools, CBOs that provide health and/or social services, and faith-based organizations. Research estimates that 20% of an individual's health can be linked specifically to medical care, with the remainder being linked to socioeconomic factors (40%), health behaviors (30%) and physical environment (10%).<sup>8</sup> This makes the community setting a critical component to population health.

Patients can move throughout the care continuum depending on their health care needs, and patients may access multiple settings within one episode of care (Figure 7). Communication between these settings and care transitions processes are important components in ensuring a care continuum that can manage groups of individuals.

FIGURE 7. THE CARE CONTINUUM<sup>9</sup>



THE MEDICAL NEIGHBORHOOD

A localized view of the care continuum is the medical neighborhood (Figure 8), a clinical-community partnership that includes the medical and social supports necessary to enhance health.<sup>10</sup> In the medical neighborhood, the primary care practice serves as the primary “hub” and coordinator of health care delivery. The most effective medical neighborhoods include high-functioning primary care practices, such as patient-centered medical homes (PCMH), as well as ambulatory, acute, and community-based health care providers, and non-clinical community-based partners such as community centers, schools, and public health agencies. This range of organizations allows the medical

<sup>8</sup> <http://www.countyhealthrankings.org/about-project/rankings-background>

<sup>9</sup> © ADAPTED with permission of American Hospital Association.

<sup>10</sup> Patient-Centered Primary Care Collaborative

neighborhood to address the individual patients needs while incorporating aspects of population health and overall community needs.<sup>11</sup>



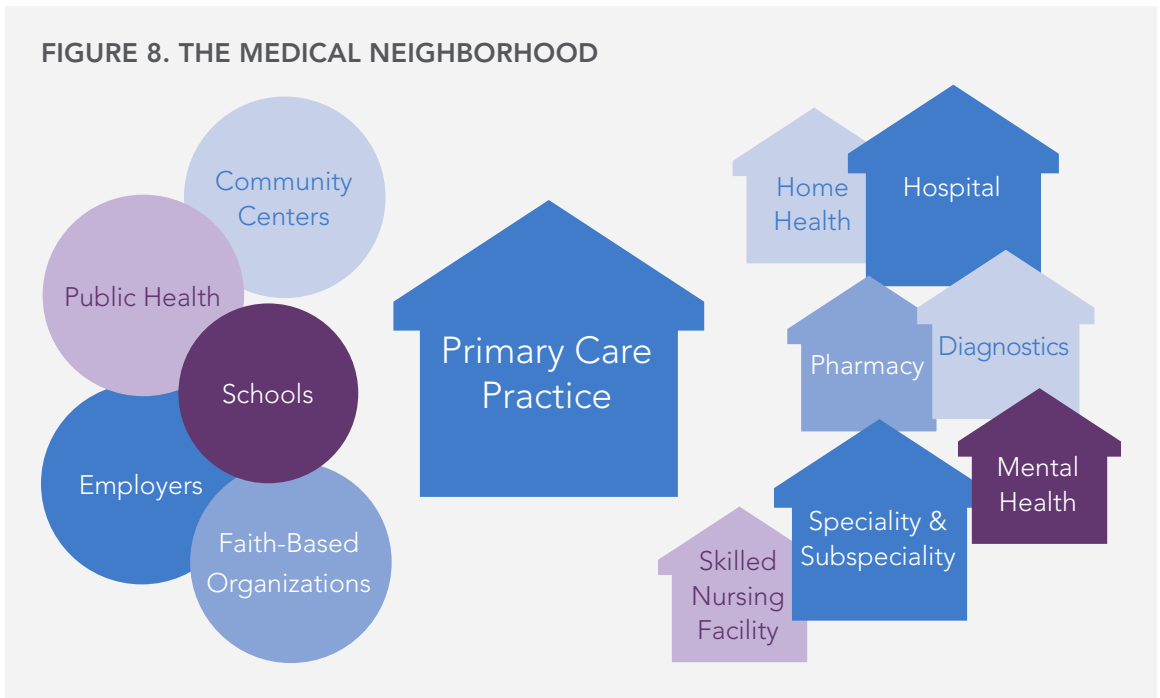
### THE PATIENT-CENTERED MEDICAL HOME

The National Committee on Quality Assurance’s Patient-Centered Medical Home 2014 recognition program requires practices to demonstrate proficiency in population health management techniques, including the following:

- Use of registries and patient lists
- Proactive outreach to patients needing services
- Care management for patients who are deemed high-risk
- Referral tracking when patients are sent to other providers
- Awareness and follow-up when patients are admitted to the hospital or visit the ED

The NCOA updates the PCMH program approximately every three years. The 2017 PCMH program will be available beginning in April 2017.

FIGURE 8. THE MEDICAL NEIGHBORHOOD



<sup>11</sup> Adapted from Agency for Healthcare Research and Quality

## SECTION TWO (continued)

Each organization in the medical neighborhood has a specific role, though the roles can overlap slightly. Examples are as follows:

### Primary Care Practice

Primary care practices typically serve as the hub of patient care. There are exceptions to this which will be discussed in the bullet points to follow. The primary care practice may be based in a hospital or in the community, and it may be a large or small practice. Regardless of its setting or size, the primary care practice role is the same.

### Specialty Practice

Specialty practices, both medical and surgical, provide specialized treatment that may not be appropriate for primary care practices. Surgical specialty practices may treat and follow-up on a specific issue. For example, a patient might see an orthopedic surgeon for a broken bone, or see a general surgeon to repair a hernia. Medical specialty practices may have long term relationships with patients who have complex conditions that require additional treatment outside of primary care. For example, a patient may regularly see a cardiologist for a heart condition, or a pulmonologist for chronic asthma. In all of these cases, the primary care practice should be aware of episodic or ongoing treatment, and maintain communication with specialty practices as much as possible. There are instances, particularly in the case of hospital-based practices or large community-based practices, when specialty services are co-located with primary care.

### Mental Health Providers

Mental health providers specialize in treating patients with behavioral health conditions, particularly individuals with severe and persistent mental illness or substance use disorder. It is common for patients in this category to utilize these providers more often, and these providers may serve as the “hub.” There are instances where primary care services are co-located in a mental health practice and mental health services are co-located with primary care.

### Care Management Provider

Care management providers typically work with high risk patients, helping them to navigate the medical neighborhood and the providers that help meet their health care and social needs. Patients with multiple needs may have arrangements to work with a care manager, either through a payer, a Medicaid Health Home, a CBO, or other means. The care management provider may be in a position to obtain information pertinent to individual care, and should make every effort to share information with the primary care practice.



## WHAT IS A HEALTH HOME?

A Health Home is a group of organizations coordinated by a lead entity that provides care management, coordination, and health promotion services for eligible Medicaid consumers. To be eligible for Health Home enrollment in New York, individuals must meet the following minimum criteria:

- Have two or more chronic conditions, OR
- Have one single qualifying condition (HIV/AIDS, serious mental illness, serious emotional disturbance or complex trauma).

Enrollment in a Health Home enables access to Health Home services. In addition to providing care management and coordination services, Health Home providers must use health information technology (HIT) to ensure that they have the most up-to-date information on patient services.

The term “Health Home” does not refer to a particular location, unlike “PCMH,” which typically refers to a primary care practice. Health Home is also different from “home health,” which is a term sometimes used to describe health care that takes place within one’s home.

### Hospital

Hospitals provide acute care to the sickest individuals. Primary care practices should have active relationships with hospitals to ensure they are aware of patient admissions or ED visits.

### Long Term Care

Long term care organizations provide varying levels of services and supports to individuals who may need daily assistance with everyday tasks as well as a certain level of clinical oversight. Services may include a broad range of non-acute care services across a care continuum, including assisted living, post-acute care (which is temporary care for individuals needing rehabilitation or additional recovery time after a hospital stay), longer-term nursing home services, hospice, or other services in one’s home.

### Home Care

Home care, which may also be considered a subset of long term care, comprises varying levels of service to individuals received directly in their homes. Home care generally falls into two levels of care: Certified Home Health Agencies (CHHAs) and Licensed Home Care Services Agencies (LHCSAs). CHHAs provide skilled care, including part-time, intermittent health care and support services to people who need intermediate and skilled health care. CHHAs can provide long term nursing, home health aide supports, therapy, social work, telehealth, and nutrition services, among other services. LHCSAs provide supportive home care services, including assistance with every-day



## SECTION TWO (continued)

functions, such as dressing, bathing, and cooking. Home care agencies also can provide nursing assessments and services. CHHAs often engage LHCSAs by contract to ensure that individuals receive the full array of in-home services they need.

### CBOs

CBOs provide a wide range of services, which vary based on the organization. This broad category includes large multi-service organizations that provide billable health care and non-billable social services as well as small organizations that provide social supports in their communities. Examples of CBOs include, but are not limited to:

- YMCAs
- Libraries
- Housing providers
- Faith-based organizations
- Community centers
- Food pantries and soup kitchens
- Neighborhood- or community-specific coalitions

CBOs have a critical role in the medical neighborhood because they are trusted community entities that have regular access to individuals outside of the health care environment. In addition to providing specific services, CBOs can help with individual and community-level engagement.

DOH developed a methodology for categorizing CBOs based on the types of services provided, and the extent to which those services are billable to Medicaid. These CBO tiers are available in [Appendix A](#).



### HEALTH INFORMATION TOOL FOR EMPOWERMENT

GNYHA's Health Information Tool for Empowerment (HITE), available at <http://www.hitesite.org>, is a publicly available website listing health and social services in New York City's five boroughs as well as Nassau and Suffolk counties. HITE lists approximately 6,000 community resources geared towards low-income, uninsured, and underinsured individuals.

### RECOMMENDED LEARNING ACTIVITIES

- Ask training participants to describe where their organizations sit on the care continuum, and their organization's role (or potential role) in the medical neighborhood.
- Ask training participants to name organizations in their medical neighborhoods
- Ask training participants to describe integration activities or community orientation activities that take place in their organizations.

## SECTION TWO (continued)

- Ask training participants to describe how they have individually interacted with other organizations in their medical neighborhood.

### CASE STUDY

*Meet Juan, Maria, and Alex, and follow their experiences through health care organizations that are implementing population health practices.*

*Juan is a 52-year-old male with complex health conditions. He has Type 2 diabetes and congestive heart failure diagnoses. He recently lost his job of 25 years, and is at risk of being evicted from his apartment. He is a frequent visitor at the two hospital EDs located in his neighborhood.*

Juan visits the ED complaining of chest pain. After being examined, it is determined that Juan is well enough to be discharged from the ED. As the nurse is reviewing discharge instructions with Juan, she mentions that there is a primary care practice with walk-in hours located a few blocks away. The primary care practice is a federally qualified health center that accepts Juan's Medicaid managed care insurance and has extended hours. She provides Juan with the phone number so he can call and make an appointment. Three days later, Juan receives a call from someone at the health center asking if he would like to come see the doctor to follow-up on his ED visit.

*Maria is a 26-year-old single mother of two children who holds a full-time job at a restaurant. Maria does not have any diagnosed health issues, but her 8-year-old daughter has asthma. Her children receive primary care services at a hospital-based clinic.*

Maria is visiting the pediatrician with her 8-year-old daughter as a follow-up to an ED visit that took place a few days earlier. During pre-visit planning, the pediatric nurse noted that this was the child's third asthma attack in six months. The provider makes some changes to the patient's medication, and starts to ask Maria about whether there have been changes in the environment that might be causing more asthma attacks. Maria mentions that her building is under new management, and she has noticed cockroaches in the apartment. The provider recommends that Maria speak with a social worker who can provide better guidance about organizations in the community that can help with this issue. The social worker uses an online directory to look up CBOs that provide home-based asthma services, and he helps Maria make an appointment. He notes this activity in the patient's chart so he can check in with Maria at her daughter's next visit.

The social worker also recognizes that Maria seems stressed. When he asks her about it, Maria mentions that she has had to miss a lot of work to pick up her daughter early from school. She is worried that she will lose her job. She has also been having severe headaches, but she has not been able to visit the doctor because of work and childcare issues. Upon hearing this, the social worker looks up CBOs that provide free or low-cost after school care that Maria can consider. He provides her with a list of organizations that she can visit on her own.

## SECTION TWO (continued)

*Alex is a 31-year-old LGBTQ individual living with HIV. He exhibits a number of high risk behaviors, including frequent drug use. He receives primary care and case management services from a community-based organization that specializes in services for individuals living with HIV/AIDS.*

Alex arrives at his primary care appointment. He is three months late for his follow-up appointment. Due to Alex's multiple diagnoses and HIV status, he is eligible for the Medicaid Health Home program, which the CBO has recently joined as a care management provider. He is enrolled that day, and the care manager completes the initial Health Home assessment.

Because of Alex's substance use history, his doctor completes an SBIRT screening and refers him to a community-based substance abuse program. In addition, Alex is exhibiting symptoms of a renal issue. The doctor orders lab tests, which are drawn during the appointment, and refers him to the local hospital-based renal practice to see a specialist. Alex's care manager is informed of all labs and referrals to ensure that Alex schedules and attends his appointments.

### Discussion Questions

- What elements of the medical neighborhood are observed in these cases?
- What elements of the medical neighborhood might be missing? Are there other organizations that could potentially be involved in this case to improve the patient outcome?

## SECTION THREE

# CAPABILITIES AND TOOLS FOR EFFECTIVE POPULATION HEALTH

### LEARNING OBJECTIVES

- ✓ Describe the elements of effective integration
- ✓ Provide examples of HIT that facilitates population health activities
- ✓ Describe activities that take place in a population health model

### EFFECTIVE INTEGRATION ACROSS THE MEDICAL NEIGHBORHOOD

In order for primary care practices and their medical neighborhood partners to successfully manage population health, there must be certain tools and capabilities in place to enable communication, exchange of pertinent patient information, and platforms for joint collaboration and strategy. The ideal medical neighborhood has capabilities and processes in place whereby the various partners are integrated, rather than fragmented and working in silos. Effective integration includes the following elements:

#### Communication

Communication is one of the core components of a well-functioning medical neighborhood. Partners in a medical neighborhood must be able to exchange information about and discuss shared patients. Communication can take place in varying forms, including electronic information exchange, formal medical records exchange guided by agreements and contracts, case conferences, or one-to-one discussions on an ad-hoc basis.

#### Shared Electronic Systems

Shared electronic systems help to improve the flow of information between partners in a medical neighborhood. Partners should have access to appropriate clinical data from electronic medical records (EMRs) and other tools.

#### Accountability

Medical neighborhood partners must share accountability for patient care and communication practices. Partners should deliberately seek communication opportunities to address their shared

patients' needs. It is also beneficial for partners to have a shared understanding of who is responsible for completing specific tasks related to particular areas of the patients' care.

### Aligned or Understood Goals for Patient Care

While organizations may each have particular focus areas, it is important for medical neighborhood partners to understand the perspectives and goals of each organization. Understanding patient care goals across organizations ensures that all partners share an awareness of the tasks and activities that comprise the patient's care. Additionally, organizational goals and priorities for patient care can vary throughout the medical neighborhood. Hospitals and CBOs are examples of medical neighborhood partners with varying priorities. Hospitals may focus on a specific clinical outcome, such as avoiding a readmission or improving overall health, while a CBO providing food assistance may specifically prioritize an individual's food insecurity. While these goals vary, both can be important to population health improvement and individual patient care.

When developing individual patient care goals, medical neighborhood partners must also take into account the goals and priorities of the individual patients.

### Understanding Roles and Responsibilities

Partners within a medical neighborhood also need an understanding of their roles and responsibilities relative to other stakeholders. Agreed upon policies and procedures for communication and coordination can improve integration of the many partners in the medical neighborhood.

The Substance Abuse and Mental Health Services Administration-Health Resources and Services Administration developed a service integration framework ([Appendix B](#)) that defines levels of collaboration and integration based on the extent to which organizations implement the above elements. This framework can be useful in identifying particular processes or tools that can be put into place to increase integration and improve organizations' capabilities to manage population health.

## **TOOLS AND SYSTEMS THAT SUPPORT POPULATION HEALTH**

Communication tools are essential for effective population health management. One such tool is a health information exchange (HIE), which allows providers to access up-to-date health care information for consenting patients. Regional Health Information Organizations (RHIOs) are HIEs that operate within a specific geographic region and meet defined standards for information exchange. Providers and other organizations subscribed to the RHIO can access patients' medical records, lab results, and other important information. Subscribers can also receive alerts so providers can be informed in real-time when patients are admitted to the ED or inpatient setting. This allows primary care practices, care managers, and anyone coordinating care to act quickly and ensure the patient receives any follow-up care that may be necessary. HIE implementation can also meet the need for shared electronic systems.

While it may be difficult to share EMRs, care management tools, and other systems used to document and track care, RHIOs provide a common platform for sharing essential patient information.



### HIE IN NEW YORK STATE

The Statewide Health Information Network for New York (SHIN-NY) is a “network of networks” that allows all New York RHIOs to securely share health-related information with each other, making it possible for providers from across the state to access patient information. A short video case study demonstrating the benefits of the SHIN-NY can be found here: [https://www.youtube.com/watch?v=\\_auVFYC7vNY](https://www.youtube.com/watch?v=_auVFYC7vNY)

Organizations practicing in a population health model have tools in place that allow them to effectively manage the health of their patients and the community at large. One of the key attributes of a population health model is the use of HIT to collect, store, share, and analyze health-related information. Health systems use different HIT tools to facilitate population health management in a number of ways. Examples of HIT include:

#### Electronic Medical Records (EMRs)

Digitized version of patient’s chart that can include a range of data, such as demographics, medical history, laboratory tests, vital signs, and radiology images. EMRs may sync with other tools, such as care management platforms and patient portals.

#### Patient Registries

Lists of patients that meet particular criteria and key tools to facilitate proactive tracking of and managing individuals requiring specific service. Registry criteria may include chronic disease, diagnosis, age, or gender. Registries are usually managed through software, which can be a part of or separate from the EMR.

#### Care Management Tools

Technology that supports care management functions, such as care planning and care coordination. Care management tools often pull patient data from EMRs, RHIOs, and other HIT to support patient-centered care.

#### Patient Portals

Patient-facing tools that allow individuals to access portions of their own medical records. Many patient portals also allow patients to communicate directly with providers or their staff, as well as request appointments and prescription refills.

## USING HIT TO FACILITATE POPULATION HEALTH ACTIVITIES

HIT tools provide a platform for a number of population health activities that help the medical neighborhood organizations understand their patient panels and communities.

### Patient Panels

EMRs facilitate the creation of patient panels, which are comprised of the entire group of patients receiving care from a provider. Panels can be created at the provider or practice level. Organizations that do not have EMRs may also have the ability to create patient lists using other technology with registration capabilities. In addition to empanelment work, EMRs house important patient data, including demographics, diagnoses, medication lists, and other patient information that informs population health processes.

### Patient Registries

Demographics, diagnoses and medication information can populate patient registries, which can be used to prevent and manage chronic disease, and ensure patients receive the care that is needed. Registries can be used as a point-of-care tool, but are also critical in proactively identifying care gaps for individuals that require particular services. Registries can also be used to manage social needs.

The following are examples that illustrate how registries can be used by front-end staff to identify care gaps and provide targeted outreach to patients.

- Individuals with diabetes are on a list that helps practice staff track whether they have received the evidence-based diabetes management services, including blood sugar and cholesterol testing, and foot and eye exams. The registry indicates when a patient is missing one of the required services so practice or care management staff can call the patient to schedule the appropriate appointments.
- A list of adults over age 50 helps the primary care practice make timely referrals to colonoscopy screenings.
- Individuals who have screened positive for housing insecurity may have regular check-ins with a care manager or housing provider.
- A list of individuals diagnosed with depression is managed by the practice's depression care manager, who ensures that the patients are enrolled in the practice's integrated depression care program and they are re-screened throughout the course of their treatment.

Registry inclusion criteria may be modified based on new evidence-based guidelines, guidance from medical societies and other associations, or practice policies and procedures.

### Risk Stratification

When patient information in the EMR is combined with claims data and other available data sources, the data can be used for risk stratification. Risk stratification is the process for assigning risk to individual patients based on their current health status and various factors that currently impact

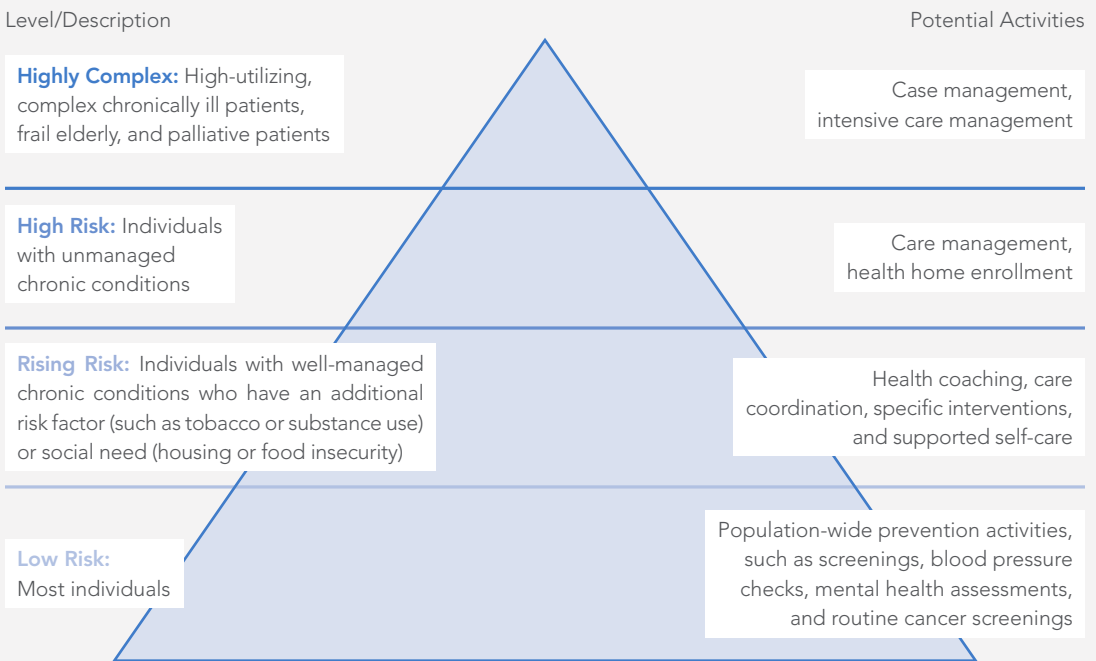
**SECTION THREE** (continued)

their health or could potentially impact their health in the future. Through risk stratification, health care providers can proactively monitor patients and assign the appropriate level of resources.

Research indicates that approximately 20% of patients account for 80% of total health care spending in the US, with the highest medical costs concentrated in the top 1%.<sup>12</sup> The individuals in these higher cost tiers are typically high-risk patients who could benefit from additional services, such as care management and navigation.

There are various methodologies for risk-stratifying patients, which may include looking at particular sets of diagnoses, health care utilization, social needs, and potential for new or worsening conditions. An individual’s risk impacts the care they receive. An example of how patients can be risk stratified and served is depicted below (Figure 9).

**FIGURE 9. RISK LEVELS AND ASSOCIATED SERVICES<sup>13</sup>**



A template to help organizations develop their own risk stratification methodology is included in [Appendix C](#).

<sup>12</sup> Commonwealth Fund Issue Brief, May 2011 ([www.commonwealthfund.org](http://www.commonwealthfund.org))

<sup>13</sup> Adapted from Population Health Management for Chronic Conditions (Warren Taylor, MD, Kaiser Permanente Northern California)



While providers look at their existing patient panels, it is also important to understand the needs of the surrounding community in order to practice effective and proactive population health. To do this, organizations can use credible, publicly available data to identify factors such as disease prevalence, health disparities, and health care utilization. When coupled with population demographics, such as race, ethnicity, and languages spoken, organizations can paint a picture of the health and social needs of the communities. This information can be found through local health departments and other public agencies.



### UNDERSTANDING HEALTH DISPARITIES AND SOCIAL DETERMINANTS OF HEALTH

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.<sup>14</sup>

A video demonstrating social determinants and their impact on one's health can be found here: [https://www.youtube.com/watch?v=\\_11xLlwKgWc](https://www.youtube.com/watch?v=_11xLlwKgWc)

### RECOMMENDED LEARNING ACTIVITIES

- Ask training participants to describe how their organizations are working to integrate with other partners, including data that may be shared or inter-organizational communication practices.
- Ask training participants to describe any instances of HIT used in their organizations.
- Ask training participants to make up patients that fit into the various risk stratification categories.

### CASE STUDY

*Meet Juan, Maria, and Alex, and follow their experiences through health care organizations that are implementing population health practices.*

*Juan is a 52-year-old male with complex health conditions. He has Type 2 diabetes and congestive heart failure diagnoses. He recently lost his job of 25 years, and is at risk of being evicted from his apartment. He is a frequent visitor at the two hospital EDs located in his neighborhood.*

Juan is at his primary care appointment at the community health center, which was scheduled after his most recent ED discharge. While at the hospital, Juan signed a consent form to have his discharge summary sent to the primary care practice. The discharge summary was faxed to the

<sup>14</sup> Healthy People 2020 <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>.

### SECTION THREE (continued)

practice based on an agreement that the health center and hospital have in place. Juan's discharge summary includes the reason for his admission and his post-discharge instructions.

During pre-visit planning, Juan's problem list is updated in the EMR and he is added to the diabetes and congestive heart failure registries to facilitate his ongoing care.

After Juan's visit, the care team pulls Juan's information from the RHIO and notes his frequent ED utilization. Juan has a follow-up visit with a care manager who learns about his recent job loss and housing concerns. The care manager links Juan with a community health worker who plans to accompany Juan to a job fair taking place the following week. Both the care manager and the community health worker note their plans in the care management tool, which is linked to the EMR at the health center.

*Maria is a 26-year-old single mother of two children who holds a full-time job at a restaurant. Maria does not have any diagnosed health issues, but her 8-year-old daughter has asthma. Her children receive primary care services at a hospital-based clinic.*

A community health worker from the CBO that provides asthma home visit services is visiting Maria's apartment to do an environmental assessment to determine the cause of her daughter's frequent asthma attacks. Before she visits, she reviews Maria's daughter's medical chart, which she can view in the medical record due to an agreement between the pediatric practice and her organization. Upon visiting, the community health worker notes the pest issue that Maria mentioned at the doctor's office. She also notes some areas where there is mold. The community health worker is able to provide information and support around pest removal services and mold remediation.

Since Maria's apartment is her last visit today, the community health worker returns to her office to complete her paperwork. She faxes a copy of Maria's environmental assessment and other pertinent information to the pediatric practice so they can scan it into the chart, making it available to the on-site care team.

*Alex is a 31-year-old LGBTQ individual living with HIV. He exhibits a number of high risk behaviors, including frequent drug use. He receives primary care and case management services from a community-based organization that specializes in services for individuals living with HIV/AIDS.*

Alex has completed his visit with the renal specialist and returned to his primary care provider for follow-up. The primary care team followed-up on the referral to ensure that the renal specialist's report was returned to the practice. Although his care manager checked in with him, Alex did not visit the substance use provider. He told his care manager that he was concerned about what people would think if they knew he was receiving substance abuse treatment. Based on Alex's concerns, the care manager suggests that he visit the co-located mental health provider to begin substance use counseling.

### Discussion Questions

- On what registries or lists might these patients be included as part of a proactive population health strategy?
- How are the organizations involved in each patient's care communicating? How could they improve their communication?
- Under which risk category would you place each patient and why?
- Based up on each patient's risk, what services should each of them receive?

## SECTION FOUR

# THE PATIENT AND CARE TEAM ROLES IN A POPULATION HEALTH MODEL

### LEARNING OBJECTIVES

- ✔ Describe the members of an extended care team and how they contribute to population health
- ✔ Describe elements of patient-centered care and how they promote population health
- ✔ Describe population health tasks and who on the care team might complete them

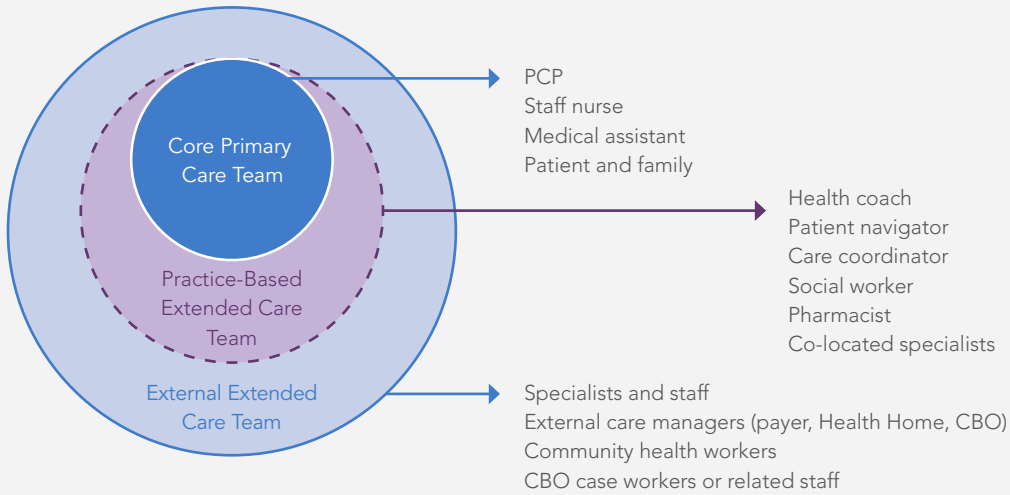
The range and complexity of population health activities necessitates the use of a robust, interdisciplinary, and inter-organizational care team that reflects the care continuum. The make-up of the care team can vary based on variables such as diagnoses, patient risk level, and particular needs identified by care providers, patients, and families.

The extended care team model ([Figure 10](#)) is an example demonstrating the various roles from across the care continuum that may be involved in a patient's care depending on their needs.

The “core” care team includes the primary care provider and practice staff members involved in the care of all patients. It is critical to include patients and families on the core care team as a way to engage them in their care and ensure their priorities are addressed. Patients with more complex needs may require the support of additional care team members, such as social workers, pharmacists, and care coordinators. When patients require services outside of the primary care practice, those involved in their care become extended care team members. The extended care team may include specialists and their staff, CBO case workers, Health Home care managers, and community health workers.

Care teams may vary by practice and organization. The extended care team may also look different from the perspective of a CBO or post-acute care provider. A care team template that organizations can complete from their unique perspectives is included in [Appendix D](#). A list of potential care team member roles is included in [Appendix E](#).

**FIGURE 10. THE EXTENDED CARE TEAM<sup>15</sup>**



A key competency associated with care team members who practice in population health models is the ability to effectively interact with other care team members within and outside of their organizations. Interdisciplinary teamwork and communication is essential to population health.

The care team is one of several elements that must be in place to ensure that care is patient-centered and responsive to individual patient preferences, needs, and values.<sup>16</sup> While the care team centers on the patient and family, there are particular capabilities that ensure the patient is the focus of all activity. These include<sup>17</sup>:

PATIENT-CENTERED CARE ACTIVITY	POPULATION HEALTH TOOLS AND CAPABILITIES	PATIENT EXAMPLE
Access to care and health advice	Patient portals and other HIT	Maria has trouble calling the doctor’s office during regular operating hours due to her job. She uses the patient portal to ask questions about her child’s medication.
Effective, evidence-based treatment	EMRs and registries	Juan’s primary care provider ensures that he does not miss his annual eye exam because his inclusion on the diabetes registry provides an alert reminding the provider that he is due to make an appointment.

<sup>15</sup> Adapted from Redefining Primary Care for the 21st Century, Agency for Healthcare Research and Quality

<sup>16</sup> Institute of Medicine

<sup>17</sup> Adapted from Picker Institute Principles of Patient-Centered Care

**SECTION FOUR** (continued)

PATIENT-CENTERED CARE ACTIVITY	POPULATION HEALTH TOOLS AND CAPABILITIES	PATIENT EXAMPLE
Shared decision-making	Care management tools	Alex meets with his care manager to discuss his ongoing substance use treatment. They decide together to add substance use treatment as a priority in the care plan. The care manager uses motivational interviewing techniques to guide Alex towards a decision to begin addressing his substance use.
Self-care support	Extended care teams	Maria’s community health worker provides asthma education for her and her daughter so that they understand and avoid her asthma triggers.
Seamless care transitions	RHIOs and communication strategies	Juan’s new primary care practice uses the RHIO to remain informed of when their patients are admitted. The practice also has agreements with various providers and CBOs in the neighborhood to ensure they are aware when patients receive services.
Attention to physical and environmental needs	Engagement of the medical neighborhood	Maria’s community health worker helps ensure that their physical environment is conducive to health.

**RECOMMENDED LEARNING ACTIVITIES**

- Ask training participants to write the continuation of the Juan, Maria, and Alex case studies.
- Have training participants provide the following information in the case:
  - Who should the care team members be for each of these patients?
  - What should the care team members’ roles be for each of these patients?
  - What are some mechanisms that the team can use to communicate with one another when issues or concerns are raised for one of these patients?

# GLOSSARY

**Advanced Primary Care (APC):** A primary care model that builds on the foundations of the patient-centered medical home, providing a systematic focus on prevention and coordinated health care alongside a shift towards value-based payment.

**Alternative Payment Model:** A payment model that rewards providers for the quality of care that they provide rather than the quantity of care provided (fee-for-service). *Also see: Value-Based Payment*

**Care Continuum:** The wide array of services available to patients over time across different settings, types, and intensities. Patients can move between these settings depending on their health care needs and may access multiple settings within one episode of care. Communication between these settings and care transitions processes are important components in ensuring a care continuum that can manage groups of individuals.

**Care Coordination:** Communication and organization of patient care activities between two or more participants involved in a patient's care. Various care team members can conduct care coordination activities.

**Care Management:** Component of clinical care typically provided to patients deemed high risk, high need, or high cost. Care management requires the development and monitoring of a coordinated care plan and integrated clinical and non-clinical activities. Care management includes frequent interventions tailored to individual patient needs and, due to the clinical functions involved, it is usually provided by a licensed member of the care team, such as a nurse or social worker.

**Community Health:** Public health field dealing with the health of a population within a local geography. Typically there is a strong focus on social interventions, and activities can take place as part of a larger public health initiative, or can be neighborhood or region-specific.

**Community Health Worker:** Frontline health care workers who are trusted members of the communities in which they serve, enabling them to liaise between health and social services and the community, facilitate access to services, and improve the quality and cultural competence of service delivery.

**Delivery System Reform Incentive Payment Program (DSRIP):** Initiative by the Centers for Medicare & Medicaid Services that provides funding to safety net providers to implement projects to improve population health and transform the delivery system. DSRIP programs are generally implemented as part of a state's request for a waiver of Federal rules to reform its Medicaid program, and require safety net providers to achieve specified performance benchmarks. DSRIP is being implemented in New York as part of a five-year demonstration running through 2019.

**Health Home:** Group of organizations coordinated by a lead entity that provides care management, coordination, and health promotion services for Medicaid consumers who meet minimum eligibility criteria, including having two or more chronic conditions, having one chronic condition and being at risk for a second, or having one serious and persistent mental health condition.

**Health Information Technology (HIT):** Electronic tools and systems that store, share, and analyze health-related information.

**Health Information Exchange (HIE):** Tool that allows providers in different settings to electronically access and securely share medical information.

**Integrated Delivery System (IDS):** Coordinated health care system formed by various health care providers, which can include hospitals, physician groups, post-acute care facilities, and other providers, which are meant to decrease redundancies in providing care.

**Medical Neighborhood:** Clinical-community partnerships that include the medical and social supports necessary to enhance health. In the medical neighborhood, the primary care practice serves as the primary "hub" and coordinator of health care delivery, with other entities as partners, including ambulatory, acute, and community-based health care providers, and non-clinical CBO partners such as community centers, schools, and public health agencies.

**Panel:** The entire group of patients receiving care from a provider or a practice.

**Registry:** Lists populated with patients that meet certain demographic or diagnostic criteria, which can be used to prevent and manage chronic disease and ensure that patients receive the care that is needed.

**Patient-Centered Medical Home (PCMH):** Collaborative and comprehensive approach to delivering primary care involving partnerships among patients, their providers, and all those involved in care delivery. The PCMH care model is integrated, coordinated, patient-centered, and cost-efficient. The National Committee for Quality Assurance (NCQA) has set standards for eligible outpatient primary care practices to apply for and receive PCMH recognition as an NCQA PCMH.



**Population Health:** The overall health and health outcomes for populations as well as the social and economic disparities affecting the health of individuals or a population. When put into practice in a health care setting, population health views patients both as individuals and as members of a broader population. Organizations that adopt population health practices provide proactive patient support and outreach to prevent exacerbation of issues, diseases, and conditions, and ensure that individuals receive the appropriate level of care at the right time in the setting that most appropriately meets their needs.

**Public Health:** Organized measures, which can be conducted by public agencies or private entities, to prevent disease, promote health, and prolong life among entire populations. Public health often includes public policies and large-scale programs on health and wellness promotion, which can be disease-specific or generally related to health.

**Regional Health Information Organization (RHIO):** Group of organizations within a geographical region that share electronic health care information according to accepted HIT standards.

**Risk Stratification:** Process for assigning risk to individual patients based on their current health status and various factors that currently impact their health or could potentially impact their health in the future.

**Social Determinants of Health:** Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.<sup>12</sup>

**Triple Aim:** A framework for large-scale health care improvement developed by the Institute for Healthcare Improvement that includes three core components, which should be strived for concurrently: improve population health (the health of populations), improve experience (improve individual outcomes), and decrease per capita cost (the cost of care per individual).

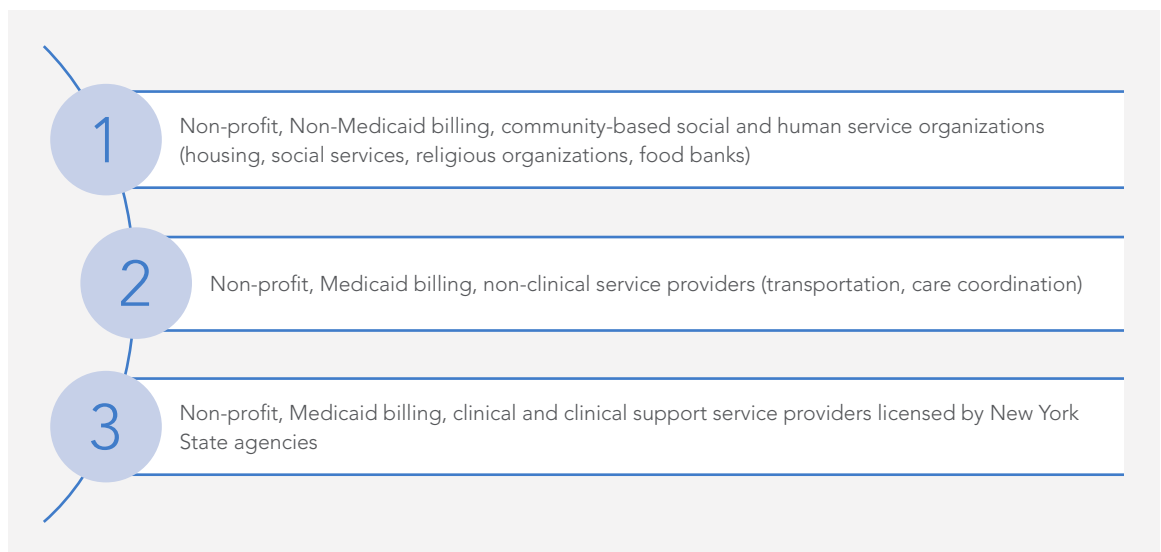
**Value-Based Payment:** Reimbursement model that ties payments to outcomes rather than the volume of services provided.

<sup>12</sup> The Institute of Medicine. *Disparities in Health Care: Methods for Studying the Effects of Race, Ethnicity, and SES on Access, Use, and Quality of health care*, 2002.

## APPENDIX A:

# NEW YORK STATE DEPARTMENT OF HEALTH CBO TIERS

DOH developed CBO tiers based on the recommendation of the DOH VBP Subcommittee on Social Determinants of Health and CBOs. These tiers reflect a CBO type based on the services provided, and the extent to which the CBO bills Medicaid for certain services.



CBOs may fall into more than one category. Additional information on the development of the CBO tiers is available here: [https://www.health.ny.gov/health\\_care/medicaid/redesign/dsrp/social\\_determinants\\_of\\_health\\_and\\_cbos.htm](https://www.health.ny.gov/health_care/medicaid/redesign/dsrp/social_determinants_of_health_and_cbos.htm).

# APPENDIX B:

## SAMHSA-HRSA STANDARD FRAMEWORK FOR LEVELS OF INTEGRATED CARE

### SIX LEVELS OF COLLABORATION/INTEGRATION (CORE DESCRIPTIONS)

COORDINATED Key Element: Communication		CO-LOCATED Key Element: Physical Proximity		INTEGRATED Key Element: Practice Change	
Level 1: Minimal Collaboration	Level 2: Basic Collaboration at a Distance	Level 3: Basic Collaboration Onsite	Level 4: Close Collaboration Onsite with Some System Integration	Level 5: Close Collaboration Approaching an Integrated Practice	Level 6: Full Collaboration in a Transformed/ Merged Integrated Practice
Behavioral health, primary care, and other health care providers work:					
In separate facilities, where they:	In separate facilities, where they:	In same facility not necessarily same offices, where they:	In same within the same facility, where they:	In same within the same facility (some shared space), where they:	In same within the same facility, sharing all practice space, where they:
<ul style="list-style-type: none"> <li>• Have separate systems</li> <li>• Communicate about cases only rarely and under compelling circumstances</li> <li>• Communicate, driven by provider need</li> <li>• May never meet in person</li> <li>• Have limited understanding of each other's roles</li> </ul>	<ul style="list-style-type: none"> <li>• Have separate systems</li> <li>• Communicate periodically about shared patients</li> <li>• Communicate, driven by specific patient issues</li> <li>• May meet as a part of larger community</li> <li>• Appreciate each other's roles as resources</li> </ul>	<ul style="list-style-type: none"> <li>• Have separate systems</li> <li>• Communicate regularly about shared patients, by phone or e-mail</li> <li>• Collaborate, driven by need for each other's services and more reliable referral</li> <li>• Meet occasionally to discuss cases due to close proximity</li> <li>• Feel part of a larger yet ill-defined team</li> </ul>	<ul style="list-style-type: none"> <li>• Share some systems, like scheduling or medical records</li> <li>• Communicate in person as needed</li> <li>• Collaborate, driven by need for consultation and coordinated plans for difficult patients</li> <li>• Have regular face-to-face interactions about some patients</li> <li>• Have a basic understanding of roles and culture</li> </ul>	<ul style="list-style-type: none"> <li>• Actively seek system solutions together or develop work-a-rounds</li> <li>• Communicate frequently in person</li> <li>• Collaborate, driven by desire to be a member of the care team</li> <li>• Have regular team meetings to discuss overall patient care and specific patient issues</li> <li>• Have an in-depth understanding of roles and culture</li> </ul>	<ul style="list-style-type: none"> <li>• Have resolved most or all system issues, functioning as one integrated system</li> <li>• Communicate consistently at the system, team, and individual levels</li> <li>• Collaborate, driven by shared concept of team care</li> <li>• Have formal and informal meetings to support integrated model of care</li> <li>• Have roles and cultures that blur or blend</li> </ul>

Heath B, Wise Romero P, and Reynolds K. A Review and Proposed Standard Framework for Levels of Integrated Healthcare. Washington, D.C. SAMHSA-HRSA Center for Integrated Health Solutions. March 2013

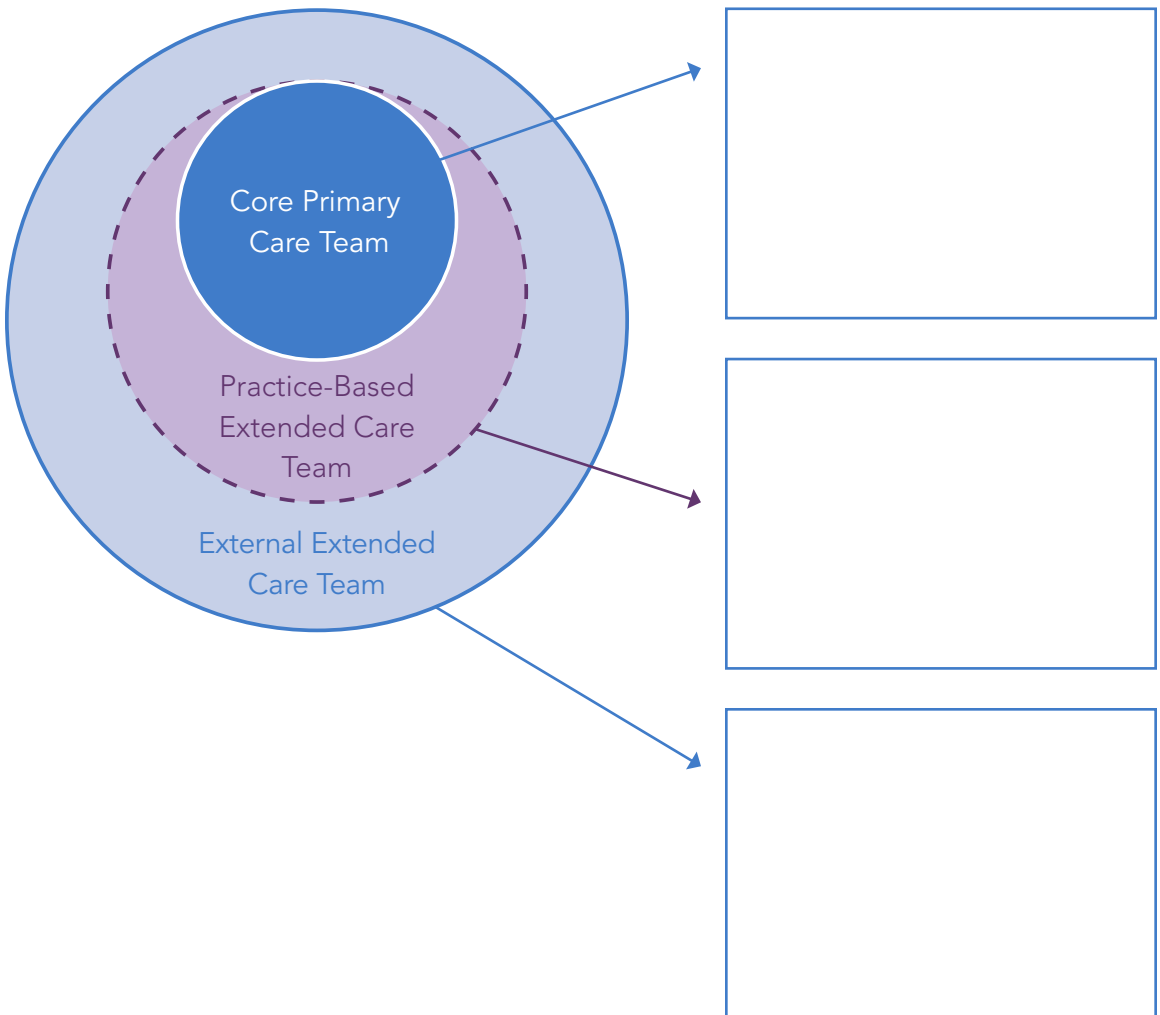
# APPENDIX C: RISK LEVELS AND ASSOCIATED ACTIVITIES TEMPLATE

Risk stratification is an essential component of population health, and helps delineate certain patient care activities to the individuals who need them most. Risk stratification criteria may vary by organization. The below template can be used help organizations assign the types of activities and services provided to patients based on their risk level.

Level/Description	Potential Activities
Highly Complex:	
High Risk:	
Rising Risk:	
Low Risk:	

# APPENDIX D: EXTENDED CARE TEAM TEMPLATE

The diagram below can be used by training participants or by organizations to delineate the care team members from organizations across the continuum. The core team might reflect the staff within the primary care practice. The practice-based extended care team might reflect the roles and individuals who assist patients with specific needs, such as medication reconciliation, addressing socio-economic issues, or navigation. The external extended care team might include staff members and roles from across the medical neighborhood and care continuum who participate in a patient's care.



# APPENDIX E:

## EXTENDED CARE TEAM ROLES

The chart below lists a number of potential care team roles, provides their licensure status, examples of the population health tasks that could be undertaken by individuals in each role. Please note that these roles can exist within various health care settings. In addition, there may be more than one of each role on the care team. Finally, the potential activities are not an exhaustive list and there may be overlap in the types of activities conducted by individuals in each role.

ROLE/TITLE	LICENSURE STATUS	POTENTIAL POPULATION HEALTH TASKS
Primary Care Physician	Licensed	<ul style="list-style-type: none"> <li>• Screen patients for and assess diseases and conditions</li> <li>• Provide and recommend treatments based on patient priorities, goals, and objectives</li> <li>• Enter codes into electronic medical records (EMR) that impact registry assignment</li> <li>• Review Regional Health Information Organization (RHIO) alerts and additional relevant patient information available through information exchange</li> </ul>
Specialist	Licensed	<ul style="list-style-type: none"> <li>• Review referrals from primary care</li> <li>• Provide requested information to primary care practice</li> <li>• Provide and recommend treatments based on patient priorities, goals, and objectives</li> <li>• Review RHIO alerts and additional relevant patient information available through information exchange</li> </ul>
Mental Health Provider	Licensed	<ul style="list-style-type: none"> <li>• Review referrals from primary care</li> <li>• Provide requested information to primary care practice</li> <li>• Provide and recommend treatments based on patient priorities, goals, and objectives</li> <li>• Review RHIO alerts and additional relevant patient information available through information exchange</li> </ul>
Physician Assistant	Licensed	<ul style="list-style-type: none"> <li>• Under direction of physician, screen patients for and assess diseases and conditions</li> <li>• Provide and recommend treatments based on patient priorities, goals, and objectives</li> <li>• Enter codes into EMR that impact registry assignment</li> <li>• Review RHIO alerts and additional relevant patient information available through information exchange</li> </ul>

**APPENDIX E** (continued)

ROLE/TITLE	LICENSURE STATUS	POTENTIAL POPULATION HEALTH TASKS
Nurse Practitioner	Licensed	<ul style="list-style-type: none"> <li>• Under direction of physician, screen patients for and assess diseases and conditions</li> <li>• Provide and recommend treatments based on patient priorities, goals, and objectives</li> <li>• Enter codes into EMR that impact registry assignment</li> <li>• Review RHIO alerts and additional relevant patient information available through information exchange</li> </ul>
Registered Nurse (RN)	Licensed	<ul style="list-style-type: none"> <li>• Conduct pre-visit planning activities to assess patient needs</li> <li>• Make discharge follow-up calls</li> </ul>
Licensed Practical Nurse	Licensed	<ul style="list-style-type: none"> <li>• Under supervision of an RN, review patient history and identify whether services may be needed</li> <li>• Carry out care plans as written and approved by physician or supervising RN</li> </ul>
RN Care Coordinator/Case Manager/Care Transitions	Licensed	<ul style="list-style-type: none"> <li>• Provide clinical care management</li> <li>• Provide self-management support</li> <li>• Ensure patients are scheduled for required services and follow-up with patients to ensure they received services</li> </ul>
Pharmacist	Licensed	<ul style="list-style-type: none"> <li>• Provide medication information, education, and related self-management support</li> <li>• Provide medication consults</li> </ul>
Social Worker	Licensed	<ul style="list-style-type: none"> <li>• Assess patients' social needs and provide referrals to required services</li> <li>• Assess and address barriers to self-management</li> </ul>
Medical Assistant	Unlicensed; Option for certification	<ul style="list-style-type: none"> <li>• Review registries for patients who require services</li> <li>• Conduct health screenings, such as tobacco screens and depression screens, and input patient answers into the EMR</li> </ul>
Care Coordinator	Unlicensed	<ul style="list-style-type: none"> <li>• Make follow-up and external appointments for patients</li> </ul>
Patient Navigator	Unlicensed	<ul style="list-style-type: none"> <li>• Make follow-up and external appointments for patients</li> <li>• Navigate patients to primary care services or other needed services</li> </ul>
Health Coach	Unlicensed	<ul style="list-style-type: none"> <li>• Provide patient education on chronic disease management or other health conditions and concerns</li> <li>• Use patient engagement techniques to assess patient priorities and share information with the care team</li> </ul>
Community Health Worker	Unlicensed	<ul style="list-style-type: none"> <li>• Provide self-management support</li> <li>• Accompany patients to appointments</li> <li>• Introduce patients to community-based services that can address needs</li> <li>• Educate patients about available ambulatory health care interventions</li> </ul>

ROLE/TITLE	LICENSURE STATUS	POTENTIAL POPULATION HEALTH TASKS
Practice Management or Administration/Organizational Administration	Unlicensed	<ul style="list-style-type: none"> <li>• Identify opportunities for and direct implementation of quality improvement projects</li> <li>• Facilitate contracts and agreements with network partners</li> </ul>
Analysts	Unlicensed	<ul style="list-style-type: none"> <li>• Analyze practice-level or population-level data to identify opportunities for larger scale intervention</li> <li>• Identify high-risk patients based on information available in the EMR, RHIO, and other tools</li> </ul>
Administrative Staff	Unlicensed	<ul style="list-style-type: none"> <li>• Make follow-up appointments</li> <li>• Call patients needing services based on their age, condition, or other related registry information</li> </ul>
Peer Support Worker	Unlicensed; Option for certification	<ul style="list-style-type: none"> <li>• Link patients to community supports</li> <li>• Advocate on behalf of patients to help support their goals</li> </ul>
Certified Home Health Aide	Unlicensed; Option for certification	<ul style="list-style-type: none"> <li>• Accompany patients to appointments</li> <li>• Communicate relevant information to physicians</li> </ul>

**POTENTIAL TASKS FOR ALL TEAM MEMBERS:**

- Build relationships with patients and families to support their care and build personalized care plans
- Communicate and coordinate with relevant care team members
- Send and retrieve relevant patient information
- Participate in pre-visit planning for relevant patients—regardless of setting—based on available information from RHIO, EMR, care management tool, or other documentation



# ADDITIONAL RESOURCES

## SECTION ONE

Health Care Costs and Spending in New York State (New York State Health Foundation)

<http://nyshealthfoundation.org/resources-and-reports/resource/health-care-costs-and-spending-in-new-york-state>

Triple Aim for Populations (Institute for Healthcare Improvement)

<http://www.ihl.org/Topics/TripleAim/Pages/default.aspx>

Value-Based Payment – Metrics for Transformation (Health Care Incentives Improvement Institute)

<http://www.hci3.org/tools-resources/metrics-tracking-transformation-us-health-care/value-based-payment-metrics-transformation>

What is Population Health (American Journal of Public Health)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447747/><https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447747/>

What is Public Health (American Public Health Association)

<https://www.apha.org/what-is-public-health>

## SECTION TWO

Defining the Medical Home (Patient-Centered Primary Care Collaborative)

<https://www.pcpcc.org/about/medical-home>

Health Homes (Medicaid.gov)

<https://www.medicaid.gov/medicaid/ltss/health-homes/index.html>

Hospitals and Health Systems of the Future (American Hospital Association, 2011)

<http://www.aha.org/about/org/hospitals-care-systems-future.shtml>

### **SECTION THREE**

Integrated Delivery Systems: The Cure for Fragmentation (American Journal of Managed Care)  
[http://www.ajmc.com/journals/supplement/2009/A264\\_09dec\\_HlthPolicyCvrOne/A264\\_09dec\\_EnthovenS284to290/](http://www.ajmc.com/journals/supplement/2009/A264_09dec_HlthPolicyCvrOne/A264_09dec_EnthovenS284to290/)

Practice-Based Population Health: Information Technology to Support Transformation to Proactive Primary Care (NORC at the University of Chicago)  
<https://pcmh.ahrq.gov/sites/default/files/attachments/Information%20Technology%20to%20Support%20Transformation%20to%20Proactive%20Primary%20Care.pdf> (accessed 2/1/17)

Standard Framework for Integrated Care (SAMHSA-HRSA)  
<http://www.integration.samhsa.gov/resource/standard-framework-for-levels-of-integrated-healthcare>

What is HIE? (healthIT.gov)  
<https://www.healthit.gov/providers-professionals/health-information-exchange/what-hie>

### **SECTION FOUR**

Advancing the Practice of Patient- and Family-Centered Care in Primary Care and Other Ambulatory Settings (Institute for Patient- and Family-Centered Care)  
<http://www.ipfcc.org/resources/GettingStarted-AmbulatoryCare.pdf> (Accessed 2/1/2017)

Redefining Primary Care for the 21st Century (Agency for Healthcare Research and Quality)  
<https://www.ahrq.gov/professionals/systems/primary-care/workforce-financing/white-paper.html#fig3>

Patient-Centered Interactions (Safety Net Medical Home Initiative)  
<http://www.safetynetmedicalhome.org/change-concepts/patient-centered-interactions>

Ten Principles of Good Interdisciplinary Teamwork (Human Resources for Health)  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662612>

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