Instructor Resources Sample

This is a sample of the instructor materials for *Population Health, Epidemiology, and Public Health: Management Skills for Creating Healthy Communities, Second Edition*, by Rosemary M. Caron.

The complete instructor materials include the following:

- Test bank
- PowerPoint slides
- Instructor manual with discussion questions and case study answers, suggested written assignments, suggested readings, and lists of resources
- Transition guide to the new edition

This sample includes the PowerPoint slides and instructor manual for chapter 12.

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CHAPTER 12 POPULATION HEALTH: A CULTURE OF HEALTH IMPROVEMENT APPROACHES

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Chapter Outline

1. Roundtable on Population Health Improvement
2. Population health improvement approaches
   - Public health and healthcare system collaboration
   - Community health needs assessment (CHNA)
   - Population health drivers
   - Health in All Policies (HiAP)
   - Quality improvement
3. Managerial epidemiology
   - Population health approach
   - Population healthcare management model

Population Health

The Institute of Medicine (IOM) has adopted Kindig and Stoddart's (2003) definition of population health: "the health outcomes of a group of individuals, including the distribution of such outcomes within the group." The IOM notes that although multiple health determinants are not specifically mentioned in the definition, the contribution of these determinants (e.g., behavior, genetics, access to healthcare, physical environment, etc.) serve as the foundation for the status of health outcomes in a population.

Population Health Improvement

The NAM Roundtable on Population Health Improvement addresses three main issues:

1. "supporting fruitful interaction between primary care and public health,
2. strengthening governmental public health, and
3. exploring community action in transforming the conditions that influence the public's health."

Population Health Approach

- Focus on Population's Health
- Invest Upstream
- Evidence-based Decision Making
- Implement Multiple Strategies
- Intersectoral Collaboration and Citizen Engagement
- Health Outcome Responsibility

Public Health and Healthcare System Collaboration

A key focus across many population health improvement approaches is the need for collaboration among public health and healthcare entities. Many entities (whether complying with Affordable Care Act provisions, the community benefit standard for tax exemptions, or Public Health Accreditation Board requirements) must assess the health of the communities in which they provide services; as they do so, they should coordinate their assessments to avoid duplication and to maximize resources (Montero, Lupi, and Jarris 2015).

Public Health and Healthcare System Collaboration

"State health departments and hospitals should work together to ensure that integration efforts go beyond clinical services and include community-based prevention efforts" (Montero, Lupi, and Jarris 2015).

- Invest upstream
- Evidence-based decisions
- Employ multiple strategies
- Collaboration
- Engage citizens
- Increase accountability for health outcomes

(Public Health Agency of Canada, http://www.phac-aspc.gc.ca/ph-sp/approach-approche/appr-eng.php#key_elements)

Population Health Approach

Population Health Improvement Approaches

Outcome Measures:

Measures

- Health determinants
- Access to healthcare
- Health behaviors

Trends

- Increases, decreases, no change

Benchmarks

- National data (e.g., Healthy People 2030)
- State data

Stoto and Davis (2019) further state that a population health approach also requires “A transformation in healthcare towards reimbursement based on value rather than the volume of services provided, meaning that healthcare systems are increasingly held accountable for improving health outcomes, which requires collaboration with others in their communities.”

Community Health Needs Assessment (CHNA)

“Public health and health care organizations are more effective when they combine their efforts to address a community population health issue than when they work separately and competitively” (Bialek, Moran, and Kirshy 2015).

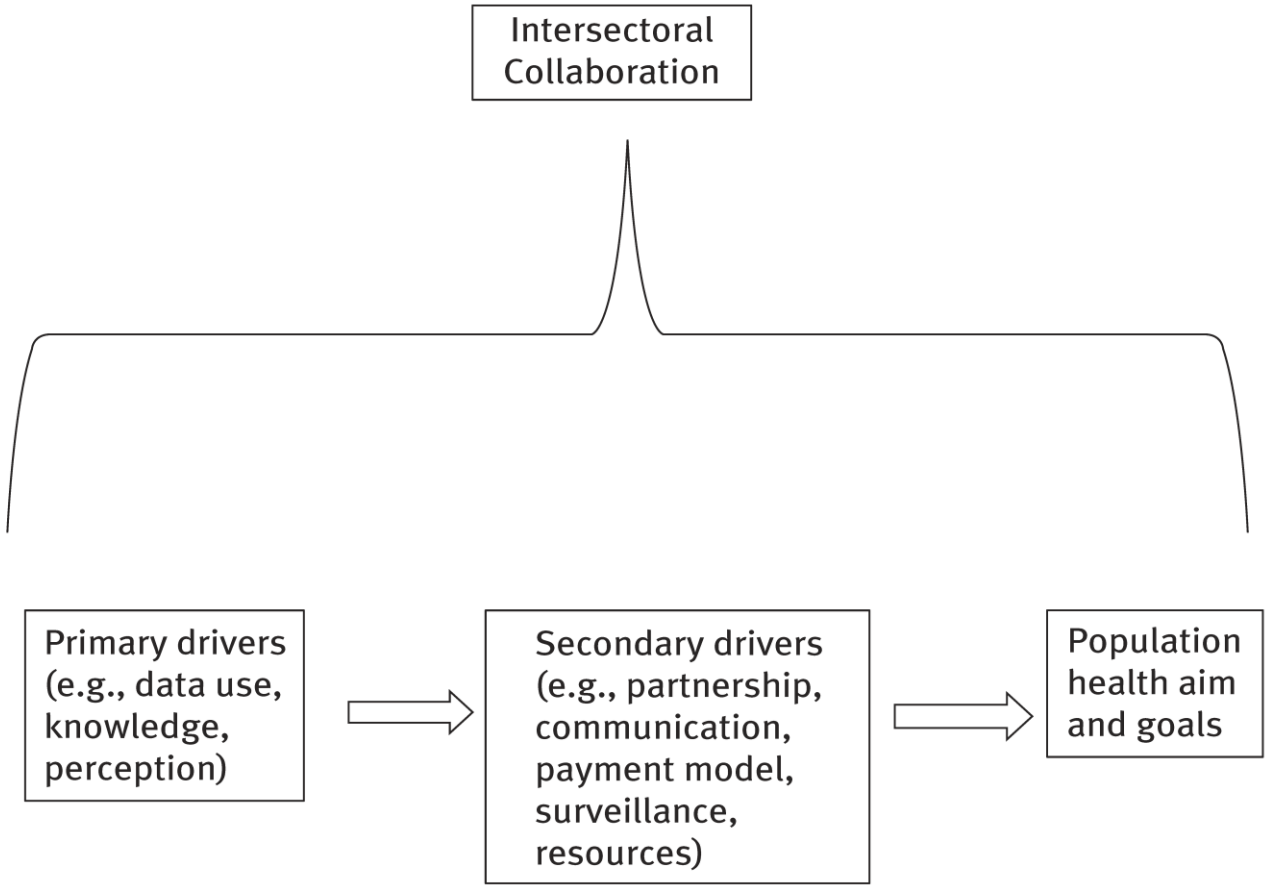
Population Health Drivers

"A **population health driver diagram** can be used collaboratively by public health, health care, and other partners to identify the potential primary and secondary drivers that can help to achieve an identified community health objective. Communities may use a population health driver diagram as a starting point for discussion among stakeholders, and to help create an atmosphere of cooperation by enabling each participant to identify their organization's role in addressing the health challenge" (PHF 2014).

Population Health Driver Framework

Population Health Drivers

Population Health Driver Program



Source: Adapted from Bialek, Moran, and Kirshy (2015).

Health in All Policies (HiAP)

The World Health Organization defines HiAP as follows: “Health in All Policies (HiAP) is an approach to public policies across sectors that systematically takes into account the health and health systems implications of decisions, seeks synergies, and avoids harmful health impacts, in order to improve population health and health equity. A HiAP approach is founded on health-related rights and obligations. It emphasizes the consequences of public policies on health determinants, and aims to improve the accountability of policy-makers for health impacts at all levels of policy-making” (WHO 2014).

Health in All Policies (HiAP)

- HiAP is a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas.
- Health is influenced by the social, physical, and economic environments, collectively referred to as the "social determinants of health."
- HiAP, at its core, is an approach to addressing the social determinants of health that are the key drivers of health outcomes and health inequities.
- HiAP supports improved health outcomes and health equity through collaboration between public health practitioners and those nontraditional partners who have influence over the social determinants of health.
- HiAP approaches include five key elements: promoting health and equity, supporting intersectoral collaboration, creating co-benefits for multiple partners, engaging stakeholders, and creating structural or process change.
- HiAP encompasses a wide spectrum of activities and can be implemented in many different ways.
- HiAP initiatives build on an international and historical body of collaborative work.

Health in All Policies (HiAP)

Solutions to these complex and urgent problems will require collaborative efforts across many sectors at the local, state, regional, and federal levels, including government agencies, businesses, and community-based organizations.

Collaboration across sectors can also promote efficiency by identifying opportunities to share resources and reduce redundancies, thus potentially decreasing costs and improving performance and outcomes in a time of great pressure on government resources" (Rudolph et al. 2015).

Culture of Health

https://www.healthaffairs.org/culture-of-health

Population Health and Quality Improvement

The Public Health Foundation defines “Quality Improvement [QI] in Public Health [as] the use of a deliberate and defined improvement process, such as Plan-Do-Check-Act, which is focused on activities that are responsive to community needs and improving population health. It refers to a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes which achieve equity and improve the health of the community” (NACCHO 2020).

Plan-Do-Check-Act

Plan – "The purpose of this phase is to investigate the current situation, fully understand the nature of any problem to be solved, and to develop potential solutions to the problem that will be tested."

1. Identify and prioritize the issue to be addressed.
2. Describe the goal, target audience, and measure you will use to determine your effectiveness.
3. Describe the current approach to the issue and identify the area you want to improve.
4. Collect data on the issue; baseline and trend data.
5. Identify factors that are contributing to the problem.
6. Develop an action plan.

Plan-Do-Check-Act

Do – Implement the action plan in this phase

1. Implement the action plan.
2. Collect data.
3. Document problems, observations, lessons learned.

Check – Analyze the effect of the intervention.

Act – Act upon what was learned.

This process is very reminiscent of the core functions of public health, which include assessment, policy development, and assurance.

Source: Adapted from Gorenflo and Moran (2015).

Managerial Epidemiology Defined

"Managerial epidemiology can be defined as the 'application of the tools and principles of epidemiology to the decision-making process' within health care settings" (Fleming 2013).

Managerial Epidemiology and the Healthcare System

Oleske (2001) proposes an epidemiological model of the delivery of healthcare services that is composed of the following:

- Population
- Need
- Utilization of healthcare services
- Health status

Managerial Epidemiology and the Healthcare System

"Health care utilization is influenced not only by a population's sociodemographic structure, but also its beliefs, knowledge, and attitudes regarding the efficacy of health services and curability of their condition and help-seeking behaviors. Characteristics of the health care system also influence utilization such as distribution of number and type of health care manpower…" (Oleske 2001) and availability of specific health care services."

Managing Healthcare via an Epidemiologic Framework

"1. Who is the population served?

a. How is this population defined?
b. What are the major size and demographic trends in this population?
c. From what distances do individuals travel to receive health care?"

(Oleske 2001)

Managing Healthcare via an Epidemiologic Framework

"2. What are the population's health care needs?

a. How can these needs be measured?
b. What is the prevalence of risk factors?
c. What is the burden of disease and other problems?"

(Oleske 2001)

Managing Healthcare via an Epidemiologic Framework

"3. What health services are feasible for addressing the population's health care needs?

a. What are barriers the population can experience when attempting to access health care services?
b. What are the capabilities of the organization/system relative to the size and needs of the population? (personnel, equipment, facilities)?
c. How do the services of the local health system link to national or regional policy goals or initiatives?
d. What environmental influences affect health services delivery? (payment conditions, provisions, market competition, trends affecting preferred delivery mode/setting)"

(Oleske 2001)

Managing Healthcare via an Epidemiologic Framework

"4. What is the population's health status?

   a. How will the health status be measured at the present and over time?"

(Oleske 2001)

Population Healthcare Management Model

"In the population health care management model, the management of objectives change to include the reduction in volume of services utilized, shift of utilization to lower-cost settings, achievement of clinical improvement by focusing on the health status of the population, integration of health care services, organization of providers into networks, and evaluation and documentation of quality" (Fos and Fine 2005).

Population Healthcare Management Model

- Holistic view
- Systems approach
- Epidemiological foundation
- Anthropologic view
- Distributive justice

(Dever 2006)

Questions?

CHAPTER 12

POPULATION HEALTH: A CULTURE OF HEALTH IMPROVEMENTAPPROACHES

DISCUSSION QUESTIONS

1. What is the purpose of a population health approach?

"A population health approach focuses on improving the health status of the population. Action is directed at the health of an entire population, or sub-population, rather than individuals. Focusing on the health of populations also necessitates the reduction in inequalities in health status between population groups. An underlying assumption of a population health approach is that reductions in health inequities require reductions in material and social inequities. The outcomes or benefits of a population health approach, therefore, extend beyond improved population health outcomes to include a sustainable and integrated health system, increased national growth and productivity, and strengthened social cohesion and citizen engagement" (Public Health Agency of Canada, www.phac-aspc.gc.ca/ph-sp/approach-approche/appr-eng.php#key_elements).

2. What actions are necessary to implement a population health approach?

The actions involved in implementing a population health approach may be summarized as follows:

Invest Upstream

- "Efforts and investments in a population health approach are directed at root causes to increase potential benefits for health outcomes. The identification and definition of health issues and the investment decisions within a population health approach are guided by parameters based on evidence about what makes and keeps people healthy. A population health approach directs investments to those areas that have the greatest potential to influence population health status positively. A population health approach is grounded in the notion that the earlier in the causal stream action is taken, the greater the potential for population health gains."

Evidence-Based Decisions

- "A population health approach uses 'evidence-based decision making.' Quantitative and qualitative evidence on the determinants of health is used to identify priorities and strategies to improve health. An important part of the population health approach is the development of new sources of evidence on the determinants of health, their interrelationship, and the effectiveness of interventions to improve health and the factors known to influence it."

Employ Multiple Strategies

- "Contemporary research has clearly demonstrated the relationship between population health status and the multiple determinants of health. Our current state of knowledge rests on the notion that the health of populations is correlated with factors that fall outside the health system or established health sector. This understanding has set the context for new approaches to health improvement that draw upon multiple strategies applied within multiple settings. It calls for innovative and interconnected strategies that give due consideration to the full spectrum of social, economic, and environmental health determinants. Based on the analysis of evidence, strategies are developed that will have the greatest relative impact on population health risks and conditions. Strategy development includes the identification of (a) who will employ strategies, (b)

to whom, (c) when, and (d) where, in order to ensure maximum contribution to desired health outcomes."

Collaboration

- "A population health approach recognizes that improving health is a shared responsibility. 'Intersectoral collaboration' is the joint action among health and other groups to improve health outcomes. A population health approach calls for shared responsibility and accountability for health outcomes with groups not normally associated with health, but whose activities may have an impact on health, or the factors known to influence it. Intersectoral collaboration in a population health approach includes the horizontal management of health issues. Horizontal management identifies common goals among sectoral partners. It then ensures coordinated planning, development and implementation of their related policies, programs and services."

Engage Citizens

- "A population health approach promotes the participation of all [citizens] in developing strategies to improve health. The approach ensures appropriate opportunities for [citizens] to have meaningful input into the development of health priorities, strategies, and the review of outcomes. A benefit of public involvement is that public confidence in decision making and information sharing is increased, as those [citizens] who are most affected by a health issues contribute to possible solutions early in the planning process."

Increase Accountability for Health Outcomes

- "A population health approach calls for an increased focus on health outcomes (as opposed to inputs, processes and products) and on determining the degree of change that can actually be attributed to an intervention. Changes are examined in health status, determinants of health and health status inequities between population sub-groups. Process, impact, and outcome evaluation are used to assess these changes.

> Regular and timely reporting of results and sharing of information with partners and [citizens] is an integral part of a population health approach."

Source: Public Health Agency of Canada, www.phac-aspc.gc.ca/ph-sp/approach-approche/appr-eng.php#key_elements.

3. What are four population health approaches? Describe their utility to improving population health.

- ***Public health and healthcare system collaboration.*** A key focus across many population health improvement approaches is the need for collaboration among public health and healthcare entities. Many entities (whether complying with Affordable Care Act provisions, the community benefit standard for tax exemptions, or Public Health Accreditation Board requirements) must assess the health of the communities in which they provide services; as they do so, they should coordinate their assessments to avoid duplication and to maximize resources (Montero, Lupi, and Jarris 2015).
- ***Community health needs assessment.*** Stoto and Davis (2019) propose that the Affordable Care Act requirement has the potential to improve population health outcomes by encouraging collaboration and aligning the efforts and resources of the public health system, the healthcare sector, and other community organizations. They further state that a population health approach also requires "a transformation in healthcare towards reimbursement based on value rather than the volume of services provided, meaning that healthcare systems are increasingly held accountable for improving health outcomes, which requires collaboration with others in their communities."
- ***Population health driver diagram framework.*** This framework, developed by the Public

Health Foundation, helps align the efforts of public health and healthcare organizations to better "tackle challenges at the crossroads" of these two sectors (Bialek, Moran, and Kirshy 2015, 1).

- ***Health in All Policies (HiAP).*** Health in All Policies (HiAP) is a cooperative approach to improving population health by incorporating health considerations into decision-making across various sectors and policy areas (Rudolph et al. 2013a).

4. What are two potential barriers to a collaborative approach among public health and healthcare organizations?

- The will, time, and resources to collaborate
- Misalignment of goals (i.e., ensure horizontal management)

5. What is the role of quality improvement in population health?

Quality improvement in public health and population health involves the use of defined and deliberate processes to improve the activities of responding to community needs and improving population health. It represents "a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes which achieve equity and improve the health of the community" (NACCHO 2021).

"Quality improvement in public health is the use of a deliberate and defined improvement process, such as Plan-Do-Check-Act, which is focused on activities that are responsive to community needs and improving population health. It refers to a continuous and ongoing effort

to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes which achieve equity and improve the health of the community" (Bialek, Beitsch, and Cofsky 2020).

6. What is the purpose of the plan-do-check-act cycle?

Gorenflo and Moran (2021) outline the phases of the PDCA process as follows:

- *Plan.* The focus of this phase is to investigate the current situation, understand the nature of the problem to be solved, and develop potential solutions that can be tested. It involves six steps: (1) Identify and prioritize the issue to be addressed; (2) describe the goal, the target audience, and the measure for determining your effectiveness; (3) describe the current approach to the issue, and identify areas for improvement; (4) collect both baseline data and trend data on the issue; (5) identify factors contributing to the problem; and (6) develop an action plan.
- *Do.* This phase involves the implementation of the action plan; the collection of data; and the documentation of problems, observations, and lessons learned.
- *Check.* The third phase focuses on analyzing the effect of the intervention.
- *Act.* The fourth phase involves acting on what was learned—typically either adopting the intervention, modifying it, or abandoning it and returning to the "plan" phase.

7. Why is it worth considering the HiAP approach when working to improve the health of a community?

- Health in All Policies is a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas.
- Health is influenced by the social, physical, and economic environments, collectively referred to as the *social determinants of health*.
- Health in All Policies, at its core, is an approach to addressing the social determinants of health that are the key drivers of health outcomes and health inequities.
- Health in All Policies supports improved health outcomes and health equity through collaboration between public health practitioners and those nontraditional partners who have influence over the social determinants of health.
- Health in All Policies approaches include five key elements: (1) promoting health and equity, (2) supporting intersectoral collaboration, (3) creating co-benefits for multiple partners, (4) engaging stakeholders, and (5) creating structural or process change.
- Health in All Policies encompasses a wide spectrum of activities and can be implemented in many ways.
- Health in All Policies initiatives build on an international and historical body of collaborative work.

Source: Rudolph et al. (2013a, 5).

8. How can a population health driver diagram approach be useful when working in an intersectoral collaboration?

The Public Health Foundation (2015) summarizes: "A population health driver diagram can be used collaboratively by public health, health care, and other partners to identify the potential primary and secondary drivers that can help to achieve an identified community health objective." The diagram can serve as a starting point for discussion among stakeholders, and it can promote an atmosphere of cooperation by enabling all participants to identify their roles in addressing a health challenge.

9. How is managerial epidemiology, as a form of the basic science of public health, applied to a healthcare setting?

Managerial epidemiology is the application of epidemiologic tools and principles to decision-making processes and the practice of management in healthcare settings.

Fleming (2013, 148) argues that management (i.e., planning, controlling, staffing, financing) of the healthcare system can benefit from the tools provided by the field of epidemiology, and he points out the difficulty of developing a strategic plan without incorporating epidemiologic estimates: "For example, strategic planning and needs assessment must consider the present and future burden of disease (measured by what epidemiologists call 'prevalence') and the burden of risk factors, which can translate into subsequent disease, by a factor that epidemiologists call 'relative risk.'" He further states that "the tools of epidemiology provide critical information for managers and planners seeking to predict future demand for services amid the current insurance markets."

10. What is the value of a population healthcare management model?

The population health care management model focuses chiefly on the health of the population and the containment of costs. Fos and Fine (2005, 10) explain: "In the population health care management model, the management objectives change to include the reduction in volume of services utilized, shift of utilization to lower-cost settings, achievement of clinical improvement by focusing on the health status of the population, integration of healthcare services, organization of providers into networks, and evaluation and documentation of quality."

SUGGESTED WRITTEN ASSIGNMENTS

I. Case Study: A Tale of One Community with Two Hospitals

The community of Greater Manchester, New Hampshire, is served primarily by two hospitals: Catholic Medical Center (CMC) and Elliot Hospital. This case provides information about the two hospitals and a community health assessment for Greater Manchester. Once you have read the materials, answer the discussion questions.

Catholic Medical Center

The following is an excerpt from the CMC (2016b) website:

> In today's turbulent healthcare environment, we … need to focus on evolving from volume-based (payments based on the number of patients we see) to value-based (payments based on the quality of care we provide to patients), and we are proud of our progress to date. We are participating in the Anthem Patient Centered Primary Care (PC2) program, Cigna shared savings, and the top 10 in the country for quality—NH Accountable Care Organization. CMC is a proud member of Granite Health—a partnership of five independent New Hampshire charitable community health systems (Catholic Medical Center, Concord Hospital, LRGHealthcare, Southern New Hampshire Health System, and Wentworth-Douglass Hospital) leading the transformation of healthcare delivery in the communities they serve…. Granite Health members are committed to sharing resources to provide better, more seamless, and less expensive care for their patients.
>
> CMC has also been focused on growing and enhancing our services. We have a Patient Transfer Center that large hospital systems are looking to model. We continue to expand our cardiac, vascular, and bariatric (weight loss) services throughout the state and announced our Telestroke and Teleneurologist program that complements our hospital-based neurologist (neurohospitalist) and award-winning Gold Plus stroke program. We are proud of our continued collaborative spirit with critical access hospitals throughout the state to focus on improving the quality of care available to their patients and the communities they serve.

The CMC (2016a) mission statement is as follows: "The heart of Catholic Medical Center is to provide health, healing, and hope in a manner that offers innovative high-quality services, compassion, and respect for the human dignity of every individual who seeks or needs our care as part of Christ's healing ministry through the Catholic Church."

Elliot Hospital

The Elliott Hospital (2016) website offers the following description:

> Elliot Health System (EHS) is the largest provider of comprehensive healthcare services in Southern New Hampshire. The cornerstone of EHS is Elliot Hospital, a 296-bed acute care facility located in Manchester (New Hampshire's largest city). Established in 1890, Elliot Hospital offers Southern New Hampshire communities caring, compassionate, and professional patient service regardless of race, religion, national origin, gender, age, disability, marital status, sexual preference, or ability to pay.
>
> EHS is home to Manchester's designated Regional Trauma Center, Urgent Care Centers, a Level 3 Newborn Intensive Care Unit, Elliot Physician Network, Elliot Specialists, Elliot Regional Cancer Center, Elliot Senior Health Center, Visiting Nurse Association of Manchester and Southern New Hampshire, Elliot 1-Day Surgery Center, Elliot at River's Edge, and Elliot Pediatrics.

The EHS mission statement is as follows:

> "Elliot Health System strives to:
> INSPIRE wellness
> HEAL our patients
> SERVE with compassion in every interaction."

Greater Manchester Community Health Needs Assessment

The following are excerpts from a community health needs assessment (CHNA) for Greater Manchester from June 2013. It was conducted jointly by CMC and EHS (2013), with assistance from the City of Manchester Health Department.

Community. The 2013 Community Health Needs Assessment focused on the Health Service Area (HSA) of Greater Manchester, a market which is primarily served by Catholic Medical Center and Elliot Hospital. The Manchester HSA is home to approximately 180,000 residents and is comprised of the towns of Auburn, Bedford, Candia, Deerfield, Goffstown, Hooksett,

New Boston, as well as the City of Manchester. These towns are located in three different counties (Hillsborough, Rockingham, and Merrimack) within the State of New Hampshire with 60% of the residents of the HSA living within the City of Manchester. (CMC and EHS 2013, 4)

***Demographics*.** The population of the Manchester HSA is changing; not only is it is aging, but it is also becoming increasingly multicultural with residents reflecting a variety of nationalities, languages, ethnic traditions, religious beliefs, and ideologies. The City of Manchester is home to 60% of the residents of the HSA and, in alignment with the State of New Hampshire, the population of the Manchester HSA is aging. The 65+ population within the HSA is projected to realize an 18% growth through 2018, and many other towns within the HSA will experience over 30% growth in the 65+ age group. . . . The City of Manchester's pediatric population is projected to realize an increase of about 2% in children ages 0–17. (CMC and EHS 2013, 5)

Access to Healthcare. Residents in the City of Manchester are much more likely not to have healthcare coverage than the rest of the State of New Hampshire. Residents earning less than $25,000 are more than twice as likely to not have health coverage as the rest of the city and almost three times as likely to not have coverage as the rest of the state. People who do not have healthcare coverage need to pay the entire costs for care themselves. The statistics are almost exactly the same for not being able to see a doctor because of cost. Residents earning less than $25,000 are more than twice as likely to not see a doctor because of cost than the rest of the city and almost three times as likely as the rest of the state. . . . Such barriers to accessing health services attribute to: unmet health needs, delays in receiving appropriate care, inability to get preventive services, as well as preventable hospitalizations. (CMC and EHS 2013, 38–39)

Health Issues. The CHNA workgroup reviewed the data collected, the surveys, key leader interviews, and focus group minutes and after much discussion has identified the following needs to be addressed in the community:

- Behavioral health issues: mental health services and access, substance abuse—specifically illicit drug use and tobacco use
- Obesity: diabetes, poor eating habits, lack of physical activity
- Aging issues: stroke, Alzheimer's, pneumonia, transportation, medication coordination, caregiver support, inadequate out-of-home care
- Chronic disease: heart disease, cancer, COPD
- Ambulatory care sensitive conditions—marker for lack of adequate preventive care: need care coordination
- Barriers to access of healthcare services related to poverty: lack of insurance, cost, transportation, lack of information on how to access care and what services are available if uninsured, language, lack of a medical home
- Teen pregnancy
- STDs: specifically, chlamydia
- Dental services/access: specifically, for adults
- Asthma
- Violence and crime: neglect and abuse, safe neighborhoods, suicide, youth crime (CMC and EHS 2013, 50–51)

Suggestions and Issues Raised by Community Members and Survey Respondents

- More mental health providers
- Coping skills for mentally ill
- Additional substance abuse services
- Coordination across agencies to promote better services and programs
- Collaborate as a community with other like organizations and support each other—so all groups can share with people
- More shelters

- More homeless housing
- Open a free/low-cost dental care facility
- Low-cost dental clinics
- Better dental care for Medicare/Medicaid people without insurance
- Health providers giving inadequate time/attention to patients
- Increase healthcare options for low-income/uninsured people
- Expand medication bridge programs to help more people get access to patient assistance programs
- Improved access for affordable health insurance to low-income/nondisabled
- People should have enough food and access to more food pantries
- More assistance for the elderly
- Volunteers to visit nursing home residents
- More gyms geared toward 65+ population
- Improve housing conditions and options—hold landlords accountable for deplorable conditions, decrease wait list time
- Clean out the lead-painted old multifamily units, especially the ones with poor heating systems
- Clean up the run-down areas . . .
- Low-cost weight management programs outside of bariatric surgery
- Make Manchester a smoke-free city
- Affordable public transportation
- Transportation for appointments
- Increase funding for schools
- Work for change in American beliefs and attitudes regarding how health is valued and what it means to be healthy (CMC and EHS 2013, 64)

Questions and Responses

1. Describe the services provided by the two hospitals in the Greater Manchester community.

These two hospitals have had to learn to work together in the same community. Catholic Medical Center specializes in cardiac care, and the Elliot Hospital offers a neonatal intensive care unit for the community.

2. Considering that two hospitals serve a population of approximately 180,000 people, would you expect the population of this hospital service area to be healthier than other communities in New Hampshire? Explain your rationale.

One might expect the population served by this area to be healthier than other parts of the state that lack two hospitals in one community. However, it is important to keep in mind that the mere presence of these facilities in their location does not mean that everyone has access to their services. It is also important to note that these hospitals are located in the southern tier of the state where the majority of the population resides, so inequalities are prevalent among this population. Thus, although this community has two hospitals, it is an area of great need due to homelessness, unemployment, and overall low socioeconomic status. Those with access to the hospitals' services are healthy, but the determinants of health prevalent in this community continue to negatively impact the population.

3. Review the community needs assessment and the suggestions from community members. Propose a way that the two hospitals might work together to implement a population health approach to address two of the identified needs.

- "More mental health providers
- Coping skills for mentally ill
- Additional substance abuse services"

These hospitals could recruit more mental health professionals, who could have privileges at both institutions. Hospitals are not normally equipped to manage the mentally ill patients who enter their facilities, so the hospitals could not only combine resources for improving the human capital component of the issue but also resource capital to build a psychiatric wing at each institution.

- "Open a free/low-cost dental care facility
- Low-cost dental clinics
- Better dental care for Medicare/Medicaid people without insurance"

The hospitals could work together to open an on-site dental clinic at one of the facilities and offer dental services on a sliding fee scale. Those without dental insurance could be underwritten as charitable care for the institution's community needs benefit. Furthermore, the hospitals could partner with the local health department and assist with the operation of a dental van that could visit high-risk neighborhoods. Additionally, there could be a shuttle bus running between both hospitals to bring those who lack transportation to the designated facility.

4. Identify four health determinants that might be contributing to poor health for the community.

There are many: homelessness, unemployment, refugee resettlement (English for Speakers of Other Languages), limited public transportation, significant uneducated population, and low socioeconomic status, among others.

5. Research the amount of charitable care provided to the community from the two hospitals, and comment on the type of community benefit activities these hospitals provide.

Catholic Medical Center's unreimbursed charity care expenses for FY14 were between $11 million and $12 million. Elliot Hospital's unreimbursed charity care expenses for FY12 were between $8 million and $9 million. Services for both generally include:

- Community health education
- Community-based clinical services
- Healthcare support services

Note: This exercise appeared in the first edition of this textbook. I removed it from the second edition but am including it here, in the instructor manual, should you like to use or adapt it.

Sources:

Catholic Medical Center (CMC). 2016a. "Our Mission, Vision, & Values." www.catholicmedicalcenter.org/about-us/our-mission.aspx.

Catholic Medical Center (CMC). 2016b. "President's Message." www.catholicmedicalcenter.org/about-us/our-ceo-and-board-of-directors.aspx.

Catholic Medical Center (CMC) and Elliot Health System (EHS). 2013. *The Greater Manchester Community Health Needs Assessment, June 2013*. www.catholicmedicalcenter.org/uploads/2013%20CHNA%20FINAL%207-10-13.pdf.

Elliot Hospital. 2016. "About the Elliot." Accessed October 25. http://elliothospital.org/website/about-us.php.

II. From Good to Great: Using Quality Improvement to Standardize Prescription for Health

Access the Public Health Foundation's summary page for this QI project:

www.phf.org/resourcestools/Pages/From_Good_to_Great_Using_QI_to_Standardize_Prescription_for_Health.aspx

Download the case (or open it at "Read the full case story here").

1. What is the key issue being addressed for this population?

The high cost of living in this particular county made purchasing fresh fruits and vegetables challenging for this community. The healthcare providers lacked resources to inform their patients as to where to go for healthy, affordable produce.

2. Describe the QI goals and processes that were implemented.

Goals

1. Standardize enrollment in the Prescription for Health program
2. Standardize program implementation
3. Educate clinic staff about the program
4. Establish a peer-to-peer network to build social support
5. Improve interdisciplinary collaboration

Processes

1. Develop an aim/goal statement
2. Develop a flow chart (i.e., driver diagram)

3. Identify roles and responsibilities of stakeholders
4. PDCA cycle

3. How does the program work?

"The goal was to improve access to local and affordable produce by building connections among primary care, public health, and local agriculture. Primary care providers identify patients with chronic disease most in need of education about nutrition and access to affordable sources for fresh produce and write "prescriptions" to encourage them to consume more fruits and vegetables. Those identified attend an educational enrollment session to discuss individual nutrition goals and program details. The enrollment sessions are led by [Washtenaw County Public Health] with assistance from community health advocates—members of the local community trained by WCPH to help engage the local population in public health initiatives. Following the enrollment session, each participant receives $50 in tokens to spend on fresh fruits and vegetables at local farmers' markets between June and October; WCPH compensates the farmers for the tokens they collect in exchange for fresh produce. WCPH staff and community health advocates conduct post-program follow-up interviews with participants to measure their progress towards healthy living goals" (Prescription for Health, www.phf.org/resourcestools/Pages/From_Good_to_Great_Using_QI_to_Standardize_Prescription_for_Health.aspx).

4. What have been the results of this QI process?

The percentage of program participants visiting a farmer's market at least once increased from 65 percent to 84 percent from Year 1 to Year 3 of the program's implementation. Furthermore,

"community businesses, like the local farms, have continued to benefit from this program, as each new participant brings more repeat business. With a foundation in open communication between healthcare providers and public health workers, Prescription for Health has improved the overall working relationship between these two sectors, and is paving the way for future collaboration" (Prescription for Health, www.phf.org/resourcestools/Pages/From_Good_to_Great_Using_QI_to_Standardize_Prescription_for_Health.aspx).

5. Describe the partners involved.

The partners involved are varied and include patients, healthcare providers, farmers, and the county health department.

6. Do you think this project is reproducible in other communities? Explain your reasoning. Consider the barriers that would need to be overcome and the resources required to initiate a similar program in another community.

This is an open-ended question. Points to look for in the student responses include what worked well in this case and where the potential barriers may be for implementation in other communities, including but not limited to "buy in" from the stakeholders; resources (including time, human capital, and financial resources); outcome measures; and an evaluative component. One of the benefits of this program is that it was limited to the summer months, so there was a beginning and an end. An issue to discuss with the class is how to keep stakeholders engaged in those initiatives that don't necessarily have an end point.

Note: This exercise appeared in the first edition of this textbook. I removed it from the second edition but am including it here, in the instructor manual, should you like to use or adapt it.

SUGGESTED READING

1. *Healthier: Fifty Thoughts on the Foundations of Population Health* by Sandro Galea

RESOURCES

1. Fleming, S.T. 2021. *Managerial Epidemiology: Cases and Concepts*, 4th edition. Chicago: Health Administration Press.
2. Fos, P.J. and Fine, D.J. 2005. *Managerial Epidemiology for Health Care Organizations*, 2nd edition. San Francisco: Jossey-Bass.
3. Oleske, D.M. (ed.). 2001. *Epidemiology and the Delivery of Health Care Services*, 2nd edition. New York: Kluwer Academic/Plenum Publishers.
4. Public Health Agency of Canada, www.phac-aspc.gc.ca/ph-sp/approach-approche/appr-eng.php#key_elements.
5. Institute of Medicine's Roundtable on Population Health Improvement, www.iom.edu/Activities/PublicHealth/PopulationHealthImprovementRT.aspx
6. Public Health Foundation, www.phf.org/Pages/default.aspx
7. Health in All Policies, www.naccho.org/topics/environmental/hiap/
8. Quality Improvement, www.naccho.org/topics/infrastructure/accreditation/quality.cfm