

Community Paramedic Toolkit

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Community Paramedic Toolkit

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Upon request, this material will be made available in an alternative format such as large print, Braille or audio recording. Printed on recycled paper.

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I. Introduction

This Toolkit is intended to be a resource for Minnesota ambulance services, hospitals, and other stakeholders considering the development or expansion of a community paramedicine program.¹

The Toolkit contains a series of helpful tools and resources that can be used by a wide variety of stakeholders, but primarily prospective employers interested in hiring and integrating a Community Paramedic (CP) into their organization. While the Toolkit contains information reflecting the current state of the profession, not all aspects of the CP profession are defined in Minnesota – statute, policy, and procedure defining the profession will continue to evolve. That said, the tools contained in this Toolkit are intended to be both actionable and measurable, and will help streamline an employer’s decision-making and, hopefully, the successful adoption of a community paramedicine program. The Toolkit also includes references, resources and examples to help planners get started quickly.

The Toolkit is organized by the following modules:

- 1 Introduction
- 2 Background
- 3 Regulation and Scope of Practice
- 4 Education and Training
- 5 Models of Care
- 6 Program Planning
- 7 Hiring, Onboarding and Supervision
- 8 Financing
- 9 Quality Measurements and Evaluation
- 10 Return on Investment

¹ The Toolkit was developed under a contract between the Minnesota Department of Health and [The Paramedic Foundation](#).

2. Background

Funding for this Toolkit comes from a federal grant. In 2013, the [Minnesota Department of Health \(MDH\)](#) and [Minnesota Department of Human Services \(DHS\)](#) were awarded a three-year, \$45 million State Innovation Model (SIM) grant by the Center for Medicare and Medicaid Innovation (CMMI) test new ways to change the delivery and payment for health care services, provide patient-centered, coordinated, community-based service delivery of care through the implementation of the [Minnesota Accountable Health Model](#)². The goal of this grant is to improve the triple aim of better health, better care and lower costs.

Figure 1: THE TRIPLE AIM OF HEALTHCARE



Source: Adapted from the IHI Triple Aim. Institute for Healthcare Improvement, Cambridge, MA.

One key goal of Minnesota's efforts is to develop new relationships between the medical care delivery system and the public health and social services sectors, in order to better meet the holistic needs of patients and communities and improve population health. A Community Paramedic can play a key role in accomplishing this goal.

Because they work in ambulance services, Community Paramedics are members of a distinct geographic community. By working in collaboration with primary care and the local public health agency, CPs can assess and evaluate community services and systems in order to identify gaps in services between the community and health care systems and services. CPs are trained to navigate systems and establish relationships to better serve the citizens of their

² The Minnesota Accountable Health Model website is available at:
http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_Home

communities. They help individuals and communities overcome barriers that prevent them from accessing and benefiting from health services. They serve as advocates, facilitators, liaisons, community brokers and resource coordinators. Community Paramedics are also trained as direct service providers which can ensure basic levels of service for prevention, emergency care, medical evaluation, triage, disease management, and oral and mental health. CPs contribute to the overall goal of empowering citizens and communities to achieve positive health outcomes and reach the optimal level of wellness.

While there were a number of trial community paramedicine programs in the United States throughout the 1990s the current community paramedicine movement began expanding in earnest in the mid-2000s.

Over the last decade or so, the concept of community paramedicine has grown in specificity and consistency – having largely focused on the necessary steps of “storming and forming” in its development. Early adopters of the community paramedicine movement are now moving into the stage of “norming” the profession – for example, defining patients with the highest need for the service, figuring out the details of Medicaid payment, building systems to implement, track, and measure CP services, and establishing partnerships with a variety of other providers and services throughout the community.

PRACTICE TIP: *A CP can be an effective tool for organizations looking for community-based strategies to reduce hospital readmissions.* According to an ER Physician in a large metro hospital system, *“the role of this community paramedic is helping people get on top of their chronic disease processes so they aren’t getting so sick that they need to come to us in the emergency department. We’re controlling their diseases so they can be handled in an outpatient setting versus having to come here or be admitted to the hospital for multiple days because they’ve gotten so far behind in their insulin for their diabetes or their COPD has gotten out of control.”*³

Policy shifts among the public and private payers of US health care are moving payment structures toward reimbursing for value-based purchasing and quality, rather than the traditional fee-for-service model. These shifts are accelerating the development and maturity of community paramedicine, occasionally with CPs taking on the role of catalyst for organizations to fully embrace change. As a result, the number of community paramedicine programs in the nation has grown considerably.

Community Paramedicine offers an opportunity for a community to expand an existing resource – EMS – into an integral part of primary health care and public health delivery. With looming demographic shifts in Minnesota due to the Baby Boomers retiring – fewer health care workers at the same time demand for services increases – an acute need for creative models like the CP is already here. In addition to addressing workforce shortages, the CP can bridge health care and public health organizations in new ways that will help individuals stay healthy.

³ “Instead of the ER” NBC News report, Nov. 30, 2013.

It is hoped that this Toolkit is a valuable resource to agencies that are looking to adopt or expand a CP program, and that by doing so, improve health of their communities.

2.1 CP Programs in Minnesota

As of early 2016, there were 16 CP programs fully operating in Minnesota, with eight more programs in development stages. *Figure 2*, drawn from a survey of CP programs in Minnesota for this toolkit, maps the program locations, and *Figure 3* – from the same survey – lists the programs that are currently running or in development.

Figure 2: Community Paramedicine Agencies in MN



Date: October 2015

Figure 3: Community Paramedicine Agencies in MN

Active community paramedicine programs	Developing community paramedicine programs
Allina Health EMS – St. Paul	CentraCare Health – Monticello
Bridges Medical Center d/b/a Essentia Health Ada	Essentia Health/Innovis Health – Moorhead
F-M Ambulance – Moorhead	Essentia Health St. Mary’s – Detroit Lakes
HealthEast Care System – St. Paul	Warroad Area Rescue
HCMC EMS- Minneapolis	Rice Memorial Hospital EMS – Willmar
North Memorial Ambulance – Robbinsdale	Virginia Fire and Ambulance Department
North Memorial Ambulance – Brainerd	Renville Ambulance Service
Meds 1 Ambulance – Grand Rapids	Essentia Health – Deer River
Perham Ambulance	
Rice County – Faribault	
Ringdahl Ambulance – Fergus Falls	
Lakewood Health System – Staples	
Tri County Hospital EMS – Wadena	
St. Paul Fire – St. Paul	
Scott County – Mobile Clinic	
Cuyuna Regional Medical Center - Crosby	

3. Regulation and Scope of Practice

Minnesota has been a leader in community paramedicine and was the first state to create a definition of the Community Paramedic role in state statute⁴. The law, passed in 2011, requires certification of Community Paramedics and authorizes the Emergency Medical Services Regulatory Board (EMSRB) to administer the certification process. This module will describe Community Paramedic certification and scope of practice – including the professional experience and education required to become a CP. It also includes information on the types of services CPs provide, based on a survey conducted in October 2015, and compares CPs to similar health care professionals.

In Minnesota, Emergency Medical Services (EMS) Regulation and Certification Levels for EMS agencies and personnel are governed by Minnesota Statutes chapter 144E⁵. The statute defines the purpose and authority of the EMSRB and allows for the licensure of basic and advanced life support EMS agencies, as well as air ambulances, and the registration of first responder units. It also provides certification for the following EMS personnel:

- Emergency Medical Responders (EMR);
- Emergency Medical Technicians (EMT);
- Advanced Emergency Medical Technicians (AEMT);
- Paramedics;
- Community Paramedics (CPs); and,
- Community Medical Response Emergency Medical Technicians (CEMT)⁶.

Community Paramedic certification offers career paramedics another level of training and a new way to use their skills. The concept grew from the traditional career ladder of EMS personnel. Most EMS personnel begin with a basic curriculum in emergency medicine and over the course of a career, gain additional knowledge, skills and certifications through training.

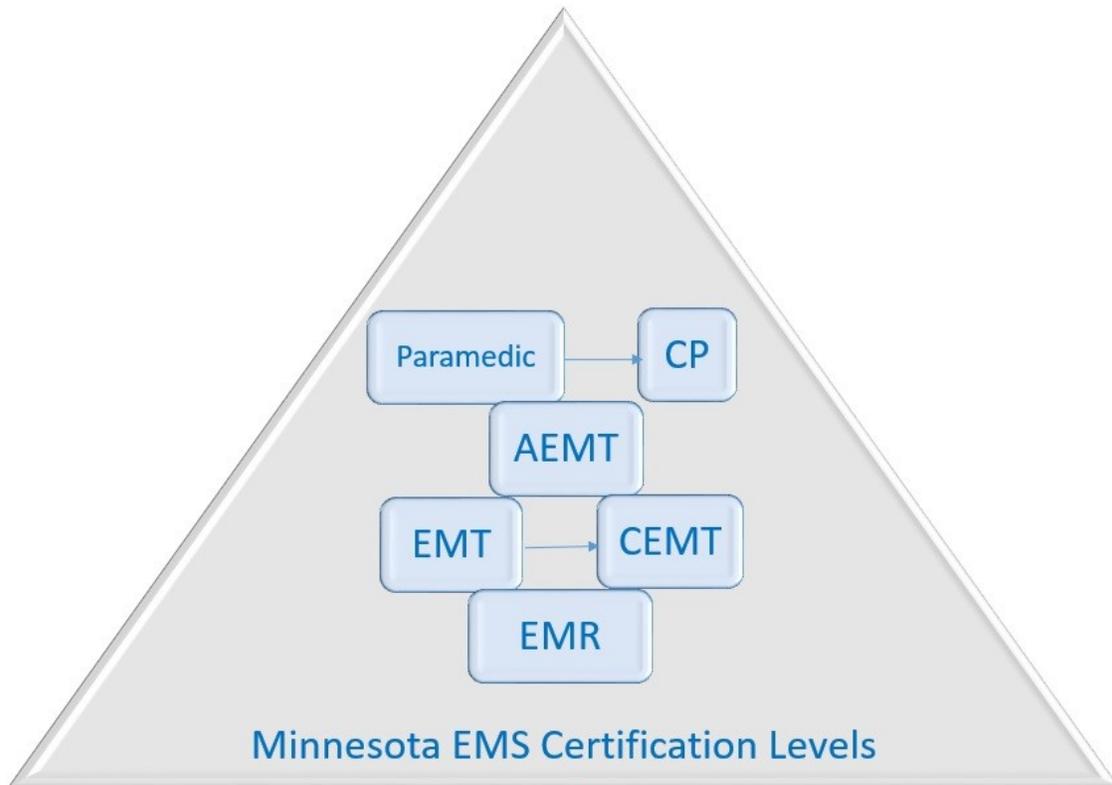
⁴ State of Minnesota Statute 144E.28, subdivision 9, available at: MS 144E.28, subd 9.
<https://www.revisor.mn.gov/statutes/?id=144E.28>

⁵ All regulatory references described in this section can be found in MS 144E, available at:
<https://www.revisor.mn.gov/statutes/?id=144e>

⁶ This profession was established in Minnesota statute in 2016, and is still in development.

Below is an illustration of the different certification levels for EMS personnel in Minnesota.

Certification Levels for EMS Personnel in Minnesota



The training and skills required to perform at these EMS levels is described under the Scope of Practice section in this module.

3.1 Community Paramedic Certification

To be certified as a Community Paramedic by the EMS Regulatory Board (EMSRB)⁷, Minnesota Statutes 144E.28, subdivision 9, requires a Community Paramedic (EMT-CP), at a minimum, to:

⁷ <http://mn.gov/boards/emsrb/>

- be currently certified as an Emergency Medicine Technician Paramedic (EMT-P), or “paramedic,” and have two years of full-time experience as a paramedic or its part-time equivalent;
- successfully complete a CP education program from an EMSRB-approved college or university that includes clinical experience provided under the supervision of an ambulance services medical director, advanced practice registered nurse, physician assistant, or public health nurse operating under the direct authority of a local unit of government;
- complete a board approved application form; and,
- practice in accordance with protocols and supervisory standards established by an ambulance service medical director in accordance with section 144E.2658.
- The legislation further states that a community paramedic may provide services as directed by a patient care plan if the plan has been developed by the patient's primary physician or by an advanced practice registered nurse or a physician assistant, as approved by the ambulance service medical director. The care plan must ensure that the services provided by the community paramedic are consistent with the services offered by the patient's health care home, if one exists, that the patient receives the necessary services, and that there is no duplication of services to the patient. The Community Paramedic is subject to all certification, disciplinary, complaint, renewal and other regulatory requirements for paramedics stated in 144E.28, subdivision 7.

The CP must stay current with a paramedic certification, renewing every two years. In addition to the paramedic certification, the Community Paramedic must complete 12 hours of continuing education every two years in clinical topics approved by the ambulance services medical director.

Information collected from the Minnesota EMS Regulatory Board (EMSRB) in the fall of 2015 indicated that there are 99 Minnesota EMSRB certified CPs who are working for Minnesota ambulance services.

3.2 Scope of Practice

As a paramedic, a Community Paramedic’s clinical knowledge is extensive. Paramedics are trained in evaluating an emergency situation and developing a plan to treat injuries and diseases of all major body systems, and they can perform some medical procedures, under

⁸ <https://www.revisor.mn.gov/statutes/?id=144E.265>

direction of a medical director. One of the main differences between a paramedic and a Community Paramedic is the additional education and training a Community Paramedic receives in order to provide services in preventive and primary care medicine⁹.

The Community Paramedic scope of practice is not specifically detailed in Minnesota Statute, except that CPs must practice in accordance with protocols and supervisory standards established by an ambulance service physician medical director – and within the limits of their education and training.

Instead of detailing scope of practice in statute or rule like some states do for paramedics, Minnesota has adopted the National Scope of Practice Model (NESPM)¹⁰ by using an “incorporation by reference” method – which establishes minimum national training standards developed by the USDOT¹¹ for paramedics. Under this method, the nationally defined model is intended to provide a standardized scope of practice minimum or “floor,” with flexibility granted to each state in deciding the maximum scope of practice, or “ceiling.” By using the “incorporation by reference” method, Minnesota is positioned to quickly adopt changes in the national floor scope of practice – no state law or rule must be enacted or amended to implement changes. Further, under this model Minnesota has the flexibility to define its own ceiling of services for paramedics. For example, Minnesota statutes provide for the Medical Director of the EMS agency to allow EMTs, including paramedics and Community Paramedics, to provide intravenous infusion and to administer opioid antagonists¹² when certain requirements of the Medical Director and EMTs are met. Outside of that exception, Minnesota uses the federal NESPM.

Minnesota Medical Directors may delegate the same authority to all paramedics within an EMS agency, or they may delegate some functions to some paramedics and provide no additional delegation to others. In addition, physicians not affiliated with an ambulance service, such as those functioning in a clinic or hospital setting, may delegate duties to paramedics. And in some circumstances, under the authority of the Medical Director, other providers such as advanced practice nurses and physician assistants can augment the Minnesota paramedic’s scope of practice by delegating their medical authority to the paramedic – as explicitly delegated by the Medical Director. In all delegated authority situations, the Medical Director retains full responsibility for the work of a paramedic or a Community Paramedic.

⁹ Minnesota Department of Human Services Community Paramedic Services Legislative Report January 2012; accessed February 22, 2016 from <http://mnemscp.org/wp-content/uploads/2012/03/Community-Paramedics-Legislative-Report.pdf>.

¹⁰ ems.gov/education/EMSScope.pdf, accessed February 21, 2016

¹¹ MS 144E.28(1)(1)

¹² MS 144E.101(6)(d)

The National EMS Registry, which provides national certification for the EMR, EMT, AEMT and Paramedic levels, provides a summary of the various EMS scope of practice levels on its website: [https://www.nremt.org/nremt/about/What is EMS.asp](https://www.nremt.org/nremt/about/What_is_EMS.asp)

3.3 Services Provided

When the Community Paramedic legislation was passed in Minnesota in 2011, the legislature directed the Minnesota Department of Human Services (DHS) to convene a stakeholder workgroup to examine the emerging Community Paramedic profession and determine specific services to be covered by Medicaid and payment rates for those covered services performed by Community Paramedics. HS established the types of individuals Community Paramedics assist and the services they provide as follows:

Services the Community Paramedics may perform include:

- Health assessments
- Chronic disease monitoring and education
- Medication compliance
- Immunization and vaccinations
- Laboratory specimen collection
- Hospital discharge follow-up care
- Minor medical procedures approved by the ambulance medical director¹³

Community Paramedics assist in the care of individuals who:

- Receive frequent hospital emergency department services
- Are identified by the primary care provider at risk of nursing home placement
- May require set up of services for discharge from a nursing home or hospital

¹³[DHS Provider Manual, accessed October 25, 2016:](#)

http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=DHS16_177475

- May require services to prevent readmission to a nursing home or hospital

Not all services a CP can provide are covered by Medicaid. A full list of potential services CPs could provide and whether they are reimbursed by Medical Assistance, Medicare, private insurance or other payers is included in the Financing section of this toolkit.

A survey of Minnesota Community Paramedics conducted in October 2015 by The Paramedic Foundation identified the types and frequency of services CPs currently provide to their patients. Results of the full survey can be found in a Community Paramedic Environmental Scan¹⁴, published by MDH in 2016.

¹⁴ <http://www.health.state.mn.us/divs/orhpc/workforce/emerging/toolkit/cpenv2016b.pdf>

4. Education and Training

This module will discuss the education requirements for Community Paramedics, the core competencies and minimum requirements needed to be a CP, and the higher education institutions that offer the CP course. It will also provide information on the number of graduates who have completed the CP program as well as continuing education opportunities and additional training that is recommended in order to be practice ready.

CPs are EMS professionals who receive specific education to fill roles in public health and primary care in coordination with a primary care provider. The scope of practice of CPs for clinical skills is the same as their paramedic scope of practice, which can vary according to delegated practice. The unique and specific roles CPs can fill are dictated by local gaps in health care. Their education is modularized so that if the local gaps change, new roles can be assumed by completing training related to the new role.

The internationally standardized CP curriculum was developed and tested in Minnesota and is also used in other states.

4.1 Education Requirements

Minnesota law¹⁵ requires that to be certified by the EMS Regulatory Board (EMSRB) as a CP the aspiring CP must:

- have at least two (2) years of experience as a paramedic; and,
- complete a CP college education program from an EMSRB-approved college or university.

4.2 Coursework and Competencies

The CP receives standardized education that is consistent internationally yet can be modified and customized for each community, province, state and nation. The education must be provided by either a college or university that is accredited by the *U.S. Department of Education Database of Accreditation*, and is approved by the EMSRB.

The curriculum in use by the Minnesota State (formerly MnSCU) system is a 14-credit (roughly 300 hour) course consisting of 114 classroom hours coupled with 196 hours of hands on clinical training in various health care settings. Coursework is standardized, but the curriculum is designed to build skills in adapting to the needs of local communities through a series of topic-specific modules. The modules were written to expand the student's knowledge about the health care system, primary care and public health, and to broaden understanding of the social

¹⁵ MS 144E.28, subd 9. <https://www.revisor.mn.gov/statutes/?id=144E.28>

determinants of health and cultural competency. The clinical settings chosen vary by the type of work the CP will do or hopes to do upon graduation.

The curriculum includes a heavy emphasis on community, including systems navigation, conducting health assessments, and creating a community-specific web of resources. It also includes a section on personal safety and wellness for CPs. Finally, a clinical and lab section includes information about expanded medical history taking and assessments, documentation, and chronic disease management throughout the life span.

The framework of the CP curriculum¹⁶ describes the level of responsibility that CPs are expected to perform, and establishes the following core competencies to be met by all students:

- CPs are supervised by a Medical Director, and if authorized by the Medical Director, a Nurse Practitioner or a Physician Assistant;
- CPs deliver care that is patient focused;
- CPs work in collaboration with local public health agencies to ensure the ten essential public health services are established and implemented as the core foundation of the program;
- CPs work with current and future organizations and professionals, understanding their professional boundaries as they establish a “treat and refer” system;
- CPs deliver the most appropriate care in the most appropriate place and ensure that the patient is referred to the most appropriate health and social services professional. CPs do not provide unnecessary transport;
- When working within an EMS setting, CPs will prioritize their work load to ensure emergency response availability;
- CPs provide appropriate health care – as delegated by the Medical Director -- and preventive services to both their patients and communities.
- CPs encourage patients to take responsibility for managing their own care and treatment where safe and appropriate to do so;
- CPs treat minor illness and injury in pre-hospital, primary care, acute, and in-patient settings;
- Under direction of the Medical Director, CPs refer for radiological procedures;
- CPs reduce hand-offs between health care professionals and enhance inter-professional communication on behalf of the patient;
- CPs assess and map community health care services to identify services available and gaps in service;

¹⁶ Community Paramedic Curriculum version 3. Copyright 2012 by the North Central EMS Institute and The Paramedic Foundation

- CPs work with the local public health agency, where possible, to develop the community's health assessment as it applies to the population's needs;
- CPs increase community awareness of health prevention and promotion;
- CPs design and provide a collaborative health approach to the community;
- CPs provide follow-up services according to established care plan developed by the patient's health care practitioners and consult and recommend appropriate modifications as needed;
- CPs serve on community multi-disciplinary teams and assist in pandemic preparation for the community; and,
- CPs are aware of the limits of their competence and are committed to act within those limits

Upon completion, the CP education program aims to produce graduates who have the competencies, knowledge, and professional skills to function as a Community Paramedic. However, after a CP completes the college or university course and begins a new position, it is recommended that a detailed explanation of education, training, entry-to-practice standards and skill maintenance of CPs be discussed at the organizational level to align expectations in performing specific services and expanded practice roles. The CP role will likely evolve over time, and having both a firm grounding in the basic skillset as well as goals for professional growth is important for employers and CPs. Information about additional education and training that may be needed to be practice ready is discussed in the Hiring, Onboarding and Supervision module of the Toolkit.

4.3 Institutions Offering CP Course

The following two higher education institutions in Minnesota are approved by the EMSRB to offer the Community Paramedic course:

- **Hennepin Technical College** -- (HTC)¹⁷ has operated a CP education course since 2008, and beginning in October 2015 is operating three courses simultaneously. HTC has educated more CP students than any other college or university in the country. It has established a model program allowing students from all over the world to participate in the course using Interactive TV.
- **Century College and Inver Hills Community College Joint Program** -- In September 2015 Century College¹⁸ and Inver Hills Community College¹⁹ started admitting CP students into a jointly operated course.

¹⁷ <https://www.hennepintech.edu/cts/pages/1224>

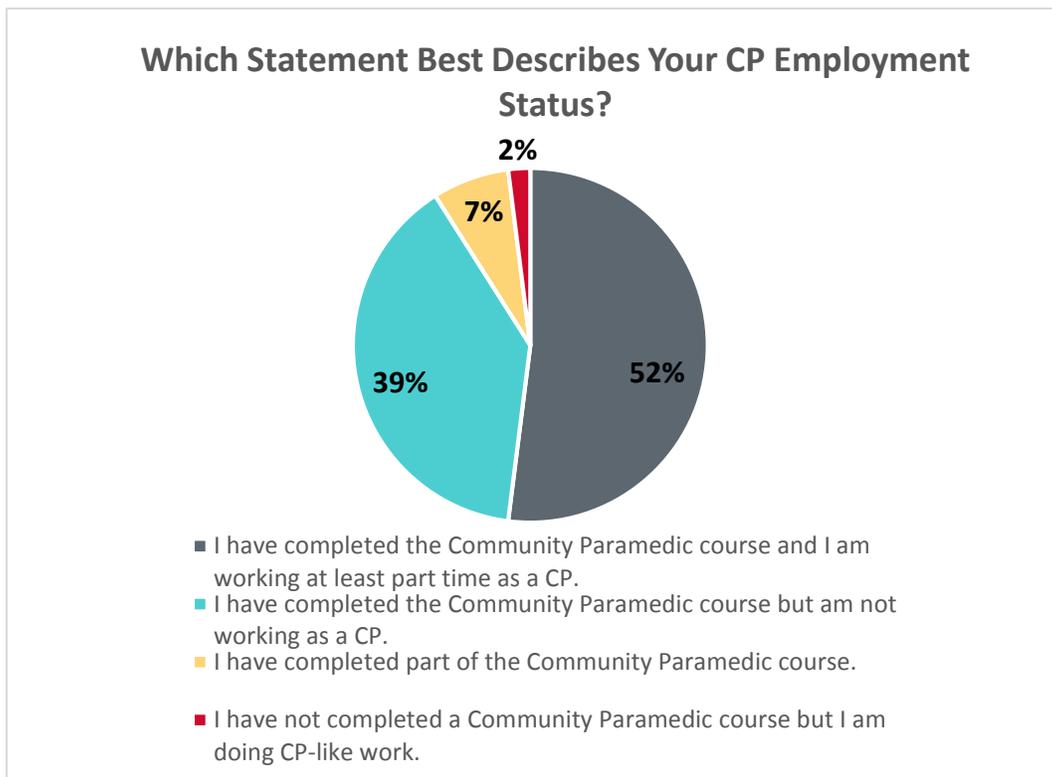
¹⁸ <https://www.century.edu/programs/ems-paramedic-science>

¹⁹ <https://www.inverhills.edu/DegreesAndPrograms/EMS/>

4.4 CP Graduates

To gauge the size of the CP workforce, as of October 2015, 90 Hennepin Technical students (out of 123 students who enrolled in a CP course since its inception in 2008) had successfully completed the entire course, including clinical training. 52% of enrollees who responded to an October 2015 survey reported that they completed the CP course and are working at least part time as a CP (*Figure 4, below.*) Finding a qualified graduate is not difficult – contact the CP programs at the schools for information.

Figure 4: Graduates Employed



4.5 Continuing Education

a. Requirements

CPs are required by Minnesota law to obtain 12 hours of continuing education in community paramedic topics approved by the Medical Director, in order to be recertified every two years. These hours are in addition to the recertification requirements for a standard paramedic. Continuing education is also important for quality performance and professional development.

b. Opportunities

Continuing education options include refreshing knowledge obtained during initial education, learning about new procedures, staying current on trends in primary care around specific disease states, or learning about the social values of new immigrants entering the community and other relevant topics.

In 2015, the Minnesota Ambulance Association²⁰ started offering an annual Community Paramedic conference, which allows CPs to attend and obtain continuing education credits. Nationally, several conferences (International Roundtable on Community Paramedicine²¹, EMS World Expo²², EMS Today²³) have begun coordinating a specific CP educational track to allow CPs to obtain continuing education, and to keep up with the evolving profession. Registration information is available from the websites in the footnotes below. Recent course topics have included:

- Mental Health
- Developing Care Plans
- Compassion Fatigue
- Different Approaches to Community Health and Needs Assessments
- Working with Skilled Nursing Facilities
- Advanced Wound Care
- New Documentation Platforms with New Technology
- Telemedicine

²⁰ <https://mnems.org/announcements/events/>

²¹ <http://ircp.info/>

²² <http://www.emsworldexpo.com/>

²³ <http://www.emstoday.com/index.html>

c. Finding Continuing Education Opportunities

Currently there is no standardized system or location for tracking continuing education opportunities for Community Paramedics in Minnesota or nationally. Individual CPs and the agencies they work for should monitor EMS publications and conferences, and track continuing education opportunities and requirements.

5. CP Models of Care

This module of the Toolkit is intended to provide examples and insight on how different organizations in Minnesota currently use the CP role to improve outcomes, improve patient experience, and control costs. Metro, rural, and suburban CP models already exist, and CPs are serving a variety of patients throughout the state. As more programs develop, one hope expressed by the profession is that lessons learned can be readily shared, and the learning curve for new programs can be shortened.

After reading this section, you may want to consider the following planning steps to help position your CP program within the health delivery changes underway in your area:

1. Contact health systems, hospitals and major physician practices in your region to learn if they are involved in or considering any of the models discussed in this module.
 - a. If there are value-based models in operation or in discussion in your region, you may find the examples and background in this module and the discussion of CP health improvement benefits, business scenarios and return on investment elsewhere in this toolkit helpful to begin discussing whether and how CP services could be integrated into local models.
 - b. If you learn that adoption or discussion of new care models has not yet reached your area, it could be productive to have discussions on the benefits and potential of CP services with other local providers anyway. Partnerships that result will be important to your success.
2. Contact local public health leadership in your area. There may be opportunities for collaboration, and you may find that both public health and EMS leadership learn from each other in ways that will contribute to your planning and chances of success.

As mentioned above, Minnesota law does not restrict the practice locations of paramedics or CPs. While all Community Paramedics are educated and trained the same, there are some differences emerging in how they are used, depending on the community they serve. Below are examples of current Community Paramedic service delivery models in Minnesota, including public health and other community based programs, primary care, hospitals, and clinics. The module will also discuss how the CP role is fitting into new payment and delivery models that reflect value based purchasing such as Accountable Care Organizations (ACOs), including the Minnesota Medicaid ACO program known as Integrated Health Partnerships (IHP).

5.1 Public Health Model

The basis of community paramedicine is to take care of patients through direct medical care and through health promotion and disease prevention activities.

Assessment, policy development, and assurance are the three fundamental purposes of public health. Public health guides providers to align services they provide to each unique community

in order to meet the population’s needs. The ten Essential Public Health Services²⁴ are integral to community paramedicine as part of the education CPs receive and types of care they provide their patients. They are as follows:

- Monitor and evaluate health status to identify community health problems
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate, and empower people about health issues
- Mobilize community partnerships to identify and solve health problems
- Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect and ensure public health and safety
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable
- Assure a competent public and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems



²⁴ <http://www.cdc.gov/nphpsp/essentialservices.html>

Public health programs work best when a broad spectrum of the community is leveraged to improve the health of the population, and when multiple sectors are engaged. CPs can function as a bridge between sectors, and have a unique perspective on the communities they serve. In many areas, the shortage of public health workforce necessitates creativity for many public health and community programs. Plugging CPs into population health interventions can add not just workers, but expertise in medical terminology and the ability to perform minor medical procedures.

Many CP programs are working in public health in one form or another – whether directly in collaboration with local public health to educate communities about health risks and wellness, or participating in population-based health initiatives to improve the overall health of the community, or in building relationships to strengthen community resources for prevention efforts.

Example models

Essentia Health-Ada²⁵ has worked closely with Norman-Mahnomen Public Health, using CPs both in the planning and execution of a full-scale inoculation exercise which involved vaccinating children at the Ada-Borup school. CPs in rural Ada are also in discussions with the Red Cross to assist in their home fire reduction campaign, which will include community education on fire prevention – as well as blood pressure checks for participants.

Ringdahl EMS,²⁶ a private EMS provider not affiliated with a hospital, has been deeply involved in the Accountable Community for Health (ACH) project in the greater Fergus Falls area. A broad group of community stakeholders – including local public health, clinic, hospital, county, the University of Minnesota, and the Salvation Army – have been building an integrated, multidisciplinary, multi-sector model to meet the health needs of low-income and uninsured residents. Ringdahl participates in community care team meetings. Referrals to the CP program have increased, and more importantly, patient outcomes have improved with the health education provided by CPs.

5.2 Primary Care Model

Primary care is comprehensive first contact and continuing care for people with any undiagnosed sign, symptom, or health concern. It includes serving patients of all ages, socioeconomic, and geographic origins; patients seeking to maintain optimal health, and, patients with all manners of acute and chronic physical, mental and social health issues, including multiple chronic diseases. Primary health care results in better health outcomes, reduced health disparities, and lower spending.

²⁵ <http://www.essentiahealth.org/ada/find-a-clinic/essentia-healthada-74.aspx>

²⁶ <http://www.ringdahlems.com/index.php>

CPs are integrated into the primary care model based on the needs of the community. Often, they are thought of as primary care extenders who act as the eyes and ears in the patient's home. CP's role in primary care includes health promotion, disease prevention, health maintenance, counseling, patient education and treatment of acute and chronic illnesses in a variety of health care settings, but especially the patient's home.

a. Urban Models

In urban areas CPs are serving diverse populations, providing a wide range of services. Many CPs provide post-discharge follow-up in the patient's home. Some are also serving the homeless population out in the street, and others are serving mental health patients in clinic settings. Several Minnesota urban ambulance services employ CPs in providing patient care.

Example models

Hennepin Technical College²⁷ is working with Scott County, the Mdewakanton Sioux community, and faith-based organizations to provide CP services in a mobile free clinic to under-insured and ethnically diverse populations in its urban and exurban area. Through this clinic, over 1,000 patients have been seen, treated and directed into a primary care clinic for ongoing patient care and follow-up. The health care is provided through delegated practice under the license of the county Medical Director and the program has been in place for nine (9) years.

Other urban examples include:

- North Memorial Health Care
- Allina Health
- St. Paul Fire (in partnership with Regions Hospital)
- Hennepin County Medical Center
- HealthEast

(More detailed descriptions of these projects are found elsewhere in this module.)

Because these CP programs are housed within busy 9-1-1 response systems, the non-CPs in the agency (e.g. Paramedics and EMTs) respond to most 9-1-1 calls, and CPs are connected with the primary care system -- working outside of the typical 9-1-1 response system.

Under direction of the Medical Director, CPs' work can be ordered by a physician housed within a family practice clinic or a specialty clinic (e.g. orthopedics, bariatrics,

²⁷ <https://www.hennepintech.edu/program/awards/394>

congestive heart failure, diabetes, geriatrics, chemical dependency, mental health), and/or coordinated by a care coordinator or case manager.

The focus in these models is primary care, where the initial patient assessment occurs over a 60 to 75-minute interval. During this time, CPs interview patients regarding their medical issues, do an extensive medication reconciliation, complete a review of bodily systems, focus on the social determinants of health, and perform an exam with on-site lab specimen collection as appropriate (e.g. international normalized ratio (INR), hemoglobin studies and urinalysis.)

They may assist with procedures such as wound care, Foley catheter care, simple ostomy care, tracheostomy care, and follow up care which occurs usually weekly for a period of four to twelve weeks. The visits are documented within an electronic health record (EHR) or on paper and are then scanned and sent to the patient's primary care practice.

CPs also serve as "resource navigators" for their patients securing inexpensive medications, proper food, appropriate shelter, and follow-up with their health care team member.

PRACTICE TIP: *Because a CP meets with patients outside the clinic or hospital, they often catch simple errors which can lead to complex problems. One CP Medical Director described the following case²⁸: "A patient with COPD was being admitted to the ER four times a month. The case was being handled appropriately, the condition was treated and the patient was discharged back home. A week later, they were back in the ED with a problem. The case manager within that ED Department dispatched one of the Community Paramedics to check on the welfare of the patient once they got home. **The equipment wasn't working properly**, and as a result, the patient was recurrently coming into the hospital in crisis. So once that was corrected, the patient no longer ended up recurrently calling 911 and ending up in the hospital ED."* – CP Medical Director

b. Rural Models

In rural areas, CPs are also trained to provide primary care as part of an integrated primary care system. The CP programs developed in rural areas, while varied and unique to each area, are generally being used for post-discharge follow-up from the hospital.

²⁸"Case Studies in Community Paramedicine," <http://www.emsworld.com/video/12244369/case-studies-in-community-paramedicine>

Most CPs maintain their active Paramedic certificate and work part-time as CPs. A handful are working within a home care agency, which increases the reach of the home care agency, and helps to coordinate care.

Example models

Northfield EMS²⁹ - In Rice County, the Northfield EMS CP Program in partnership with the community clinic Health Finders Collaborative (HFC), developed a “coordinated care hub”.³⁰ HFC is a county-wide free clinic providing services to residents who are elderly, have chronic disease (AODM, CHF, COPD, or mental illness), are of diverse cultural backgrounds (Latino, Somali, and South Eastern Asian) and who are underinsured. HFC sees 2,600 patients per year in two separate county clinics located in Northfield and Faribault. The program is coordinated by the clinic’s case manager and is showcasing collaborative efforts of the community health worker/Community Paramedic emerging professionals. The CPs are doing in-home visits for patients who cannot be seen in the clinics for various reasons. This project is part of the HealthRise Program³¹, a five year, seventeen-million-dollar Medtronic Philanthropy global initiative that supports community based demonstration projects specifically designed to expand access to care and management of chronic diseases such as heart disease and diabetes. Two million dollars of the seventeen million dollars will go toward projects in Rice, Hennepin, and Ramsey counties in Minnesota.

Other examples of rural CP programs in Minnesota programs include the following:

- Tri-County Health Care
- Meds-One EMS (In partnership with Itasca County),
- Ringdahl EMS (In partnership with Wadena and Stevens Counties)
- Northfield EMS (In partnership with Rice County)
- North Memorial Health Care (In partnership with Otter Tail County and Crow Wing County)

(More detailed descriptions of these projects are found elsewhere in this module.)

These EMS agencies tend to not have as much response and transport volume as urban 9-1-1 responders and therefore can simultaneously do both CP work and 9-1-1 response as part-time Advanced Life Support (ALS) providers. This gives rural communities an opportunity to hire a paramedic and potentially upgrade their levels of 9-1-1 response

²⁹ <http://www.northfieldhospital.org/emergency-medical-services-ems>

³⁰ <http://healthfindersmn.org/services/coordinatedcarehub/>

³¹ <https://www.health-rise.org/>

from Basic Life Support (BLS) to part-time ALS. They could also opt to provide CP services 24x7.

Rural CPs generally complete patient assessments, (60-75 minute visits) and provide patient care services similar to urban CPs, but the activity mix of rural CPs generally includes a longer visit, and a higher proportion of procedures. Wound care, catheter changes, (Foley colostomy, ureterostomy, tracheostomy), central venous line placements, intravenous maintenance therapy for skilled nursing facilities (SNF), venous blood drawing for SNF units, simple suturing and simple extremity splinting are all performed by rural CPs with appropriate clinical education under delegation from the Medical Director.

Because of a lack of other health care providers in rural areas, the length of time the CP provides ongoing patient care to clients may be longer than in urban areas. CPs function as important members of their community health care team and serve as resource navigators for their patients in a manner similar to that of the urban CP. Case management however, is frequently coordinated via a public health connection at the county level versus a clinic connection.

CPs in Critical Access Hospitals and Rural Health Clinics

In Minnesota there are 78 Critical Access Hospitals (CAHs) and all CAHs either own an ambulance service or contract with one.

Also, there are currently 88 Medicare certified Rural Health Clinics (RHCs) in Minnesota³² -- most of which are operated as provider-based clinics within the financial structure of a hospital.

Because CAHs and RHCs receive cost-based reimbursement, operating a community paramedicine program as part of a CAH or RHC may seem attractive on the surface, but the CAH or RHC may only receive cost-based payments from federal payers, and then only on allowed costs. The rules on cost-based payments are lengthy and complex.

Some considerations for CP programs looking to partner with CAHs and/or RHCs:

- Where the CP can fit into the services that qualify for cost-based reimbursement, a CP program can be very advantageous in a CAH or RHC.
- Where the CPs services fall outside of those services that are cost reimbursed, the CP provides little reimbursement advantage and may, in some cases, be disadvantageous.

³² <http://kff.org/other/state-indicator/total-rural-health-clinics/>

- The setting of the service is an important consideration in whether a CP's services are payable on a cost basis or not.
- For CAHs, the cost of CPs serving in a role caring for patients in an inpatient or outpatient hospital setting would generally be allowable.
- The cost of a CP serving in the ambulance service would not be allowable as a reimbursable cost unless the service meets the federal 35-mile distance requirement for CAH-based ambulances.
- If a CP practices in both a hospital and ambulance setting, the cost of the CP would need to be allocated between the hospital cost-center where services are provided (e.g. Emergency Department) and the ambulance service.
- When operating inside the walls of a RHC, the cost of the CP performing an allowable service would be added to the cost of clinical personnel and treated as allowable cost.
- If the CAH or RHC's proportion of Medicare and Medicaid patients is low, the reimbursement received will be relatively low as a portion of overall revenue.
- CAHs that already own and operate an ambulance service may have the opportunity to use the down time of their paramedics to perform CP services.
- CAHs that do not own and operate an ambulance service would have the option of contracting CPs from their community's or a nearby community's ambulance service. In this way, an EMS provider that does not receive cost reimbursement from Medicare may be able to generate cost-based reimbursement (or contracted) revenue for a CP working in an area of the hospital where the cost is allowable.

A CAH or RHC considering starting a CP program or partnering with one should take into consideration the reimbursement rules and carefully consider the advantages and disadvantages of incorporating a CP in care delivery. Existing CP programs are expanding and gaining market share all the time. It may be helpful to reach out to some of the programs listed in this Toolkit for advice.

Creative planning that maximizes billable CP revenue opportunities and captures income available through an ACO or other value-based model can also help maximize the advantages and minimize the disadvantages of CP programs affiliated with CAHs and RHCs.

5.3 Value-Based Models

Since the passage of the Patient Protection and Affordable Care Act (the "ACA") in March 2010, the health care system has seen a push by the federal government to move away from a fee-for-service based payment system to paying for the value of those health care services, or what is called value-based purchasing or payments. Many have seen this push embodied by the Institute for Health Care Improvement's Triple Aim:

- Improving the experience of care (including quality and satisfaction)

- Improving the health of populations
- Reducing the per capita cost of health care

Through new authority and tools introduced by the ACA, the U.S. Department of Health and Human Services (DHHS) has funded and encouraged the development of new models of care with the intent of achieving the goals of the Triple Aim. DHHS has, in particular, focused on how coordinating care more effectively for patients (in particular, high complexity patients) can improve outcomes, improve patient experience, and reduce cost. To do this, DHHS has funded projects that look at how adding new roles or changing traditional roles for health care providers can improve care coordination. One such new role funded by DHHS through the Center for Medicare and Medicaid Innovation (CMMI) has been the Community Paramedic (CP). Other CMS projects have incorporated Community Paramedics even when the role of the CP was not the focus of the project.

In Minnesota, a growing number of health care providers are using CPs to improve patient care coordination and thereby show improvements in patient care and cost. These health care providers have recognized that the CP has a unique role in coordinating care for complex patients for three reasons:

- They are available 24/7 because of a paramedic's traditional function as an emergency first-responder.
- They do the majority of their work outside of a clinic/hospital.
- They have identified and filled “gaps” in health care within their communities.

These health care providers are using CPs in projects aimed at changing their models of care to better educate and guide patients through acute and chronic health care treatment paths. In the paragraphs below are several care delivery and payment models used throughout Minnesota that incorporate CPs.

a. Medicaid Integrated Health Partnership Model

Another model of care delivery implemented with CP programs in Minnesota communities is the Integrated Health Partnership (IHP) model³³. Minnesota’s Department of Human Services (DHS) has developed the IHP model of Accountable Care Organization to test innovative health care delivery systems for the Medicaid population.

³³ More information at

http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_IHP

Under the model, delivery systems form IHPs that are eligible to share in savings if cost and quality targets are met. The following systems are currently participating in the IHP program:

- Children’s Hospitals and Clinics
- CentraCare Health System
- Essentia Health
- Mayo Clinic
- Gillette Children’s Specialty Health Care
- North Memorial Health Care
- Federally Qualified Health Center Urban Health Network (FUHN)
- Wilderness Health
- Hennepin Health Care System (HCMC)
- Southern Prairie Community Care
- Lake Region Health Care
- Allina Health System
- Northwest Metro Alliance (Allina and HealthPartners)
- Bluestone Physician Services
- Lakewood Health Systems
- Courage Kenny Rehabilitation Institute
- Integrity Health Network

For CPs in this model, EMS services (primarily in rural areas) are working with numerous other local stakeholders to address complex health care problems and needs.

Examples of Minnesota CP programs operating within an Integrated Health Partnership model

Tri County Health Care³⁴ The Integrated Health Partnership (IHP) model in Wadena County has been in place for three years. CPs in this program are employed by Tri-County Health Care and are partnered with Wadena County Public Health. Together, they are addressing the health needs of their community as identified in a gap analysis. There are five CPs available 24/7, using EPIC as their electronic medical record (EMR). They see 5-10 patients per month and deal with several medical issues including chronic diseases (AODM, CHF, COPD, stroke

³⁴ <http://www.naemt.org/docs/default-source/community-paramedicine/mih-cp-grid/tricounty-case-study-1.pdf?sfvrsn=2>

management/rehabilitation, mental illness, chemical dependency and post-operative care). The skills they provide include lab draws, tracheal tube stoma care, bladder scans, medication administration to the mentally ill, medication reconciliation/education, 12 lead EKGs, IV starts, wound care and ostomy care. These services are administered through delegation of their Medical Director's license and are coordinated by an RN case coordinator housed within the primary care clinic system.

Meds 1³⁵ In Itasca County, the IHP model has been in place for three years. The focus of this program has been on vulnerable adults who, without assistance at home, would require care in a skilled nursing facility (SNF). The CPs are housed within Meds-1 Ambulance Service and are partnered with Itasca County Public Health, Itasca County Human Services and Veterans Services. From January 2016 to April 2016, 88 patients aged 16-94, were seen, seventeen requiring more than two visits. Of these, three required admissions to SNFs, four required assistances in an assisted living facility (ALF) with the rest remaining in their homes with the support of the additional resource providers (CPs, Home Health Care Nurses, Certified Nurse Assistants, and Public Health Nurses (PHN)). Skills that the CPs provide under delegated authority from the Medical Director include wound care, patient assessment, medication reconciliation/education, and mental health assessments.

Ringdahl EMS, in Otter Tail County, began its CP Program in April of 2015, and deploys two full time and one part-time CP. Ringdahl is a part of an IHP in partnership with Otter Tail County Public Health and Vibra Health Care (Vibra provides long term acute care, medical rehabilitation, and outpatient rehabilitation services). CPs provide wound care, chronic disease management, AODM, COPD, CHF, mental health and lifestyle counseling. They do so under their Medical Director's delegated practice and they coordinate their work through an RN care coordinator housed within the hospital and the patients' primary care clinic. They see 20-22 patients per week.

North Memorial Ambulance³⁶ in Crow Wing County and the Essentia Health System are using the IHP model to address problems in caring for patients with asthma. The program started in July 2016 and focuses on children and

³⁵ <http://meds-1.com/>

³⁶ <http://www.northmemorial.com/brainerd/>

the prevention of reoccurring hospitalizations secondary to complications of the disease.

Lakewood Health System³⁷ in Wadena and Todd counties identifies patients at risk for reoccurring admissions to the hospital because of significant chronic disease. Coordination of this program occurs between the home health care program and hospice services with oversight by the ambulance Medical Director.

Hennepin County Medical Center³⁸ launched a program in early 2015 where CPs work in a clinics housed within Harbor Lights Shelter, a homeless shelter in downtown Minneapolis. The CP services occur after regular clinic hours. At the clinic, the CPs implement enhanced standing orders, perform medication reconciliation, do lab draws, provide wound care and manage chronic diseases under delegated physician practice. As a result of CPs' work, in the last year Harbor Lights Shelter has seen a 16% decrease in EMS responses and a 54% decrease in first responder responses to the shelter.

b. Medicare Shared Savings program

The Medicare Shared Savings program³⁹ is similar to the Medicaid IHP model in that if an ACO meets agreed upon quality and cost targets serving Medicare patients, savings can be shared between the payer and the ACO. However – for CPs – the Medicare Shared Savings model is seen predominantly in urban Minnesota hospital systems with an EMS agency embedded within the system using the ACO⁴⁰. The Medicare Shared Savings program has been more easily adopted in urban areas than rural areas because of the requirement to have at least 5,000 Medicare fee-for-services beneficiaries assigned to the ACO.

³⁷ <http://www.lakewoodhealthsystem.com/>

³⁸ <https://www.hcmc.org/services/CommunityParamedic/index.htm>

³⁹ <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharesavingsprogram/index.html?redirect=/sharesavingsprogram>

⁴⁰ ACO Overview

http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=SIM_ACO

Examples of CP programs operating within ASavings models

North Collaborative Care⁴¹ North Memorial Hospital formed a partnership with Multicare Associates of the Twin Cities, Northwest Family Physicians and others, to coordinate care across multiple primary care clinics and hospitals. CPs are providing post-discharge follow-up and referral. Up to 30 clinical and outcome measures are used to assess performance. In 2014, shared saving achieved over \$2 million for the ACO.

Allina Health System⁴² operates a program in which CPs have been dispatched to the homes of patients residing within the communities of Coon Rapids and Anoka who are dealing with CHF/Acute Myocardial Infarction issues. This program has been in place since early 2015 and has demonstrated success by keeping readmissions to the hospital for a 30-day window at less than three percent and for keeping readmissions for all high-risk patients within a 30-day window at less than five percent.

c. Other ACO Models

ACO models exist in the private market as well. Commercial ACOs are covering more lives, and encompassing more aspects of care. A 2015 Minnesota Department of Health (MDH) report entitled "Baseline Assessment of ACO Payment and Performance Methodologies in Minnesota for the State Innovation Model (SIM)⁴³" found that the ACO model in Minnesota is "in development," more mature than "beginning" but not all the way to "mature." The report uses seven different competencies believed to be critical to development:

- Population Health Management
- Disease Management
- Case Management
- Patient Engagement
- Utilization Review
- Clinical Decision Support
- Performance Management

⁴¹ <https://northcollaborativecare.wordpress.com/>

⁴² <http://www.allinahealth.org/Customer-Service/Billing-and-insurance/Pioneer-Accountable-Care-Organization/>

⁴³

http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs16_197638

The report states that an ACO's greatest identified competency – coordinated disease management – was still identified as “needing development.” This aligns well with the services provided by CP programs. Many CP programs have proven very successful at identifying a target patient population and greatly improving the care coordination for the patient leading to improved patient outcomes and management of chronic conditions. Other ACO competencies that align closely with CP programs are case management and patient engagement. Case management's steps of transition of care management, gaps in care analysis, remote monitoring and management and readmission management are steps in which CPs could be vital. CP programs by design seek to find gaps in care and improve the rate of readmission of patients by delivering home care before a patient requires readmission. Under patient engagement, CP programs have proven to be very important in improved patient education and patient involvement as they deliver education on patients' conditions and seek to engage the patient in managing their care. In addition, CP programs deliver care at home, improving patient access.

6. Program Planning

Planning a successful community paramedic program requires accounting for the breadth of factors presented in this toolkit and building the findings and conclusions about each component into your plan. Among the important planning considerations discussed in this toolkit are:

- Learning about health care developments in your region and connecting with health care leaders (Module Five)
- Understanding the education and capabilities of CPs (Module Four) and creating a staffing and supervision plan (Module Seven) and
- Quality Measurement and Program Evaluation (Module Nine)

This module will discuss some of the additional planning necessary for developing a community paramedic program including how to market the program and create buy-in from providers in order to develop a referral base, engaging the EMS Medical Director and some tips on seeking out new contracts and arrangements to expand operations that will help generate revenue and sustain the program.

6.1 Making the Business Case

Each ambulance service knows its own capacity, budget, and community. Making a business case for adding a new service such as Community Paramedicine involves assessing a long list of variables, all unique to each community and each agency.⁴⁴ Some variables to consider before exploring a CP program are:

- Assessing community needs;
- Securing key partner commitments;
- Assessing program feasibility;
- Considering state regulations;
- Making the internal commitment;
- Determining how to provide medical direction;
- Determining program scope – patients and communities to serve, services to provide;
- Developing personnel;
- Budgeting;

⁴⁴ For more information, a CP Program Manual has been developed by the Eagle County Health Services District, which can be downloaded at: <http://www.communityparamedic.org/Program-Handbook>.

- Engaging the community;
- Developing policies and procedures;
- Planning and implementing a data/documentation infrastructure;
- Planning and implementing training;
- Developing measures and an evaluation plan;
- Beginning operations; and,
- Evaluating the pilot phase.

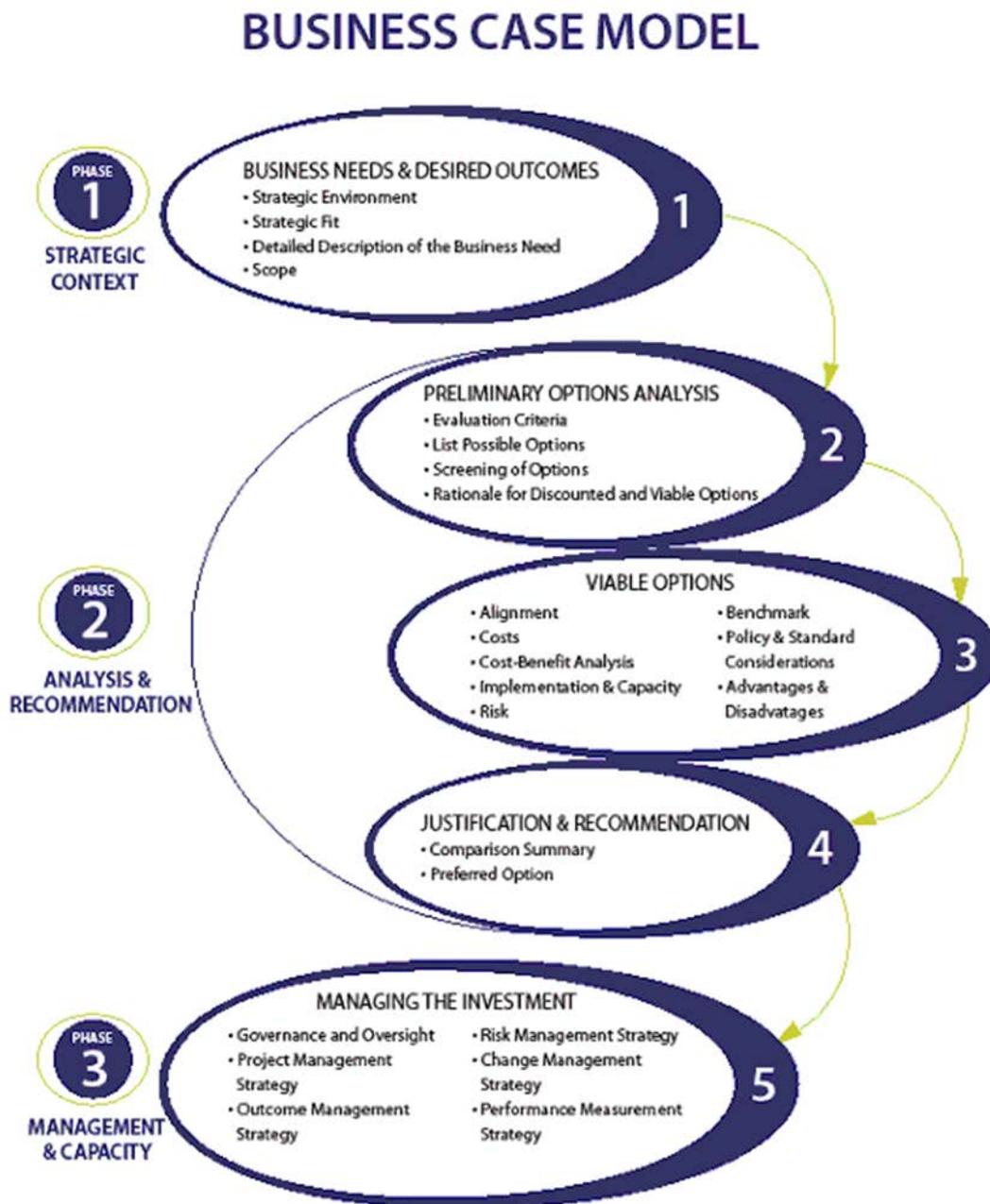
As noted above, this toolkit includes resources on many of these factors, but it cannot account for all of these variables, nor can it be a source for advice on the best course of action for individual agencies. However, there are many examples⁴⁵ of tools⁴⁶ which can help agencies structure the decision-making process. Writing an actual business plan is a good way to develop and present these components in detail.

In the example template below from the Canadian government (*figure 5*), the key decision points are broken out into three main phases:

⁴⁵ <https://www.sba.gov/starting-business/write-your-business-plan>

⁴⁶ <https://www.rocketlawyer.com/form/business-plan.r/#/>

Figure 5: Business Case Model Template⁴⁷



⁴⁷ <https://www.tbs-sct.gc.ca/hgw-cgf/oversight-surveillance/itpm-itgp/pm-gp/emf-cag/bcg-gar/bcg-gar01-eng.asp>

6.2 Medical Direction

As communities address gaps in health care access and consider ways to solve the problem that may include using a Community Paramedic as a physician extender, the EMS Medical Director becomes a key stakeholder in the discussions. He/she is key because the CP can only practice under delegation of the Medical Director's license. As such, the EMS Medical Director will need to be fully supportive of this level of care.

The Medical Director should have an interest in primary care as well as public and population health. He/she should have a good understanding of health care trends, such as demographic changes in the community, the cultural makeup of the community and changes in utilization. The CP, technically an extender of the EMS Medical Director, will be able to address the health care demands of new parts of the community by seeing patients in their homes, before they develop medical emergencies demanding 9-1-1 responses and a transfer to a hospital emergency department.

The Medical Director will also need to understand the latest approaches to health care being promoted at the federal and state levels, particularly reforms driven by the Triple AIM of improved quality of care, less expensive care, and a focus upon patient satisfaction. EMS, through its community paramedicine programs, will be able to assist other health care organizations in addressing these policy and reform goals.

Tasks the Medical Director will be responsible for in the CP Program include, but are not limited to, the following:

- educating personnel;
- protocol/guideline development;
- development of measures and evaluation criteria;
- continuous quality improvement initiatives;
- outcomes tracking;
- coordination of members of the health care team; and
- establishment of partnerships with community organizations and resources.

He/she should also have time to promote the program and be a CP champion. In rural communities, an EMS Medical Director is likely already involved in discussions around community health, public health, and primary care, and will often become a champion of the work of the CP.

In urban areas, the EMS Medical Director's focus may not be on primary care. Instead, these physicians are frequently trained as Emergency Medicine Specialists with emphasis on handling acute emergencies, and they may have less of an emphasis on transitional and long-term follow-up care. It is this group of Medical Directors who, with additional education, may also become champions of the CP provider. Becoming an advocate for community paramedicine will allow Medical Directors to assist in developing education programs to expand the role of the CP. It will also lead to the type of research opportunities that many Medical Directors seek.

The Medical Director's time to take on these new responsibilities should be recognized and reimbursed. In a large EMS organization, if the additional responsibilities for CP oversight places too great a strain upon the Medical Director, an assistant CP Medical Director may be the answer. This physician could be selected based upon a primary care background with additional interests in community and population health.

6.3 Creating Buy-In and Recruiting Referral Providers

Community Paramedic (CP) services and the idea of using a paramedic in a different role in the community is a new concept for most providers. Many health care providers don't have a basic understanding of the role of an EMT or paramedic and the different skills they offer for patient care, much less an understanding the role of a CP. So CP agencies must approach the local physician providers to explain what a CP is, what they can do for communities, and then they can recruit partners for referrals. It may also be necessary to have a conversation with clinical directors, hospital CEOs, government officials, and leaders of other community organizations, so that the community gets comfortable with the CP and the knowledge and expertise they can provide. These discussions can build on any preliminary conversations that have taken place with stakeholders, such as those that occurred while researching health care developments in the region as recommended in Module 5.

A 2015 report⁴⁸ on community paramedicine by the National Association of Emergency Medical Technicians (NAEMT)⁴⁹ outlined the importance of integration and referrals across the continuum of care. The report found that patients who have frequent contact with EMS and hospitals often have multiple medical problems, comorbidities and complex psychosocial circumstances. These health issues cannot be solved by a single entity, but instead require the expertise and coordination of a variety of health care providers, social services agencies and community resources. For EMS, these partnerships enable CP programs to match each patient's needs with the right resource. The report identified the following as the top seven locations in order where CPs refer patients:

- Home Health Organizations
- Social Services Agencies
- Primary Care Facilities
- Mental Health Care Facilities
- Addiction Treatment Centers
- Public Health Agencies

⁴⁸ Zavadsky, M., Hagen, T., et. Al. (2015). *Mobile Integrated Healthcare and Community Paramedicine: National Survey Results* [Electronic version]. Retrieved from <http://www.naemt.org/docs/default-source/community-paramedicine/naemt-mih-cp-report.pdf?sfvrsn=4>

⁴⁹ <http://www.naemt.org>

- Community Health Clinics

The collaboration between health care agencies and CPs is essential to the success of any CP program. Most importantly, it is what is best for the patient. CPs can redefine the role of an agency from emergency response to more patient education, prevention, and care coordination.

6.4 Step-by-step Marketing of the Program

First, it is important to recruit an advocate or a group of advocates in the health care system who understand the language of health care – and sees the potential value of the CP role in the community. This advocate can be anyone in the health care continuum who has connections to local practitioners in the area.

Second, develop a short presentation that explains what a CP is and what CPs can do for the community. The presentation can be used in multiple settings to create buy-in with providers. Refer to recent community needs assessments so the CP program will have a direct connection with needs of the community. Develop talking points that will be easy to follow, yet flexible for the audience. It will be important to continue to refine the talking points as advocates meet with new practices in step three.

Third, set up meetings with physician stakeholders and other leaders to explain the populations the CP can serve with the new program. Most physician practices have biweekly or monthly staff meetings where the EMS agency can get 5 to 10 minutes to present the idea. It is important to bring the advocates to the meeting to help navigate the language or ideas in the meeting. These 5 minute meetings may not allow for questions and answers, so prepare a fact sheet that anticipates questions and answers.

Physician practices are interested in how the CP will bring value and better outcomes for patients. They will often ask why it is not just easier for the patient to come to the office. There may also be a fear of lost revenue to the practice if services they customarily provide take place off-site. Be prepared with responses. One approach would be to tell the physician practice that using a CP will allow them to see and bill for more patients. It will also allow the CP to be the eyes and ears of the physician in the patient's home. It might help to explain some of the value proposition as outlined in the Financing section of this Toolkit. These techniques and ideas will help formulate the value for a practice – particularly as physicians are becoming more aware that their payment will be based on the quality of the care they deliver as developments like the Medicare Merit-based Incentive Payment System (MIPS) are implemented in coming years. Physician clinics might also be interested in being part of a system that provides close follow and referral to Emergency Department patients so that visits to the primary care clinic increase.

Providers will also be interested in the methodology the CP program will use to follow-up on patients the CP has seen. Close follow-up can improve patient health and satisfaction and drive quality improvement for the provider. Proposed benefits of a CP partnership should be rooted in the care plan of the provider. The methods of communication should to be explained, and may include use of electronic health records and/or sending reports back to the physician's offices so they can attach notes from the CP visit to the patient's chart.

Fourth, talk with the front office staff, care coordinators, medical assistants, and the nursing staff at partnering clinics and hospitals. They are often the most important gateway to the physician, nurse practitioner, or physician assistant. They can also be a great place to remember to refer the patient to a CP.

Finally, it is important to market the CP program to various stakeholders in the service area of the program. These marketing ideas must be tailored to the practice, because often times what works for one may not work for another. Creating posters and reminders will help practitioners remember to use the CP service.

6.5 Contracting

As more EMS agencies are seeking out new contracts and arrangements to allow for CP programs to find work and revenue for sustainability, a few observations on contracting principles have been provided below to help guide the process of contracting. These tips are intended to address negotiations from the EMS agency perspective, and it's important to note that some may not apply globally if a health care system requires a specific contract design. EMS agencies will be best able to take advantage of these suggestions once they've completed the business planning steps discussed above and understand their costs, potential revenues, etc.

- Negotiate a price point that provides for excess revenue for further program development, training, recapitalizing equipment and the like; don't just cover your costs. Avoid the temptation to set your price too low to just get started because it can be hard to increase the price later.
- Only risk what you can afford to lose, and include clear language on contract adjustments or termination.
- Define value before entering a contract or allow for a period to show results.
- Use successful examples and your business plan to illustrate the potential for success and sustainability.
- Align data collection and agree upon measures.
- Build flexibility into contract terms to allow for implementation and innovation.

6.6 Resources for Program Planning

(NOTE: At the end of the remaining modules, there will be a list of resources i.e., documents, templates, workbooks, and fact sheets designed to provide a deeper level of information and guidance on various aspects of the Toolkit.)

To access the following Resources, go to: <http://paramedicfoundation.org/toolkit>.

- Medical Director Agreement Template
- Stakeholder Memorandum of Understanding (MOU) Template
- Inter-Governmental Agreement Template

7. Hiring, Onboarding, and Supervision

The processes and procedures for recruiting, hiring, onboarding, and supervising Community Paramedics (CP) are often unique to individual agencies. The information in this section will provide an agency with guidelines on recruitment strategies; wage and salary data to assist when determining appropriate compensation; hiring and onboarding a CP; and the Medical Director's oversight regarding CP competencies and continuing education.

Supporting current paramedic employees to become educated as community paramedics and adding CP duties to their positions, or creating new CP positions for them on graduation, is the most common path for starting community paramedic programs in Minnesota to date. Some of the suggestions in this module won't apply when promoting a current employee to a CP position, but much of the information will still be useful in program planning. The discussion below on selecting the right job candidate may also be useful in selecting currently employed paramedics to sponsor for CP education.

7.1 Recruitment and Hiring

a. Determining Staffing Needs

The first step in staffing a CP program is to determine the number of positions required to serve the community. Whether the CP works fulltime providing CP services or part-time responding to 9-1-1 calls and part-time providing CP services is a decision of the individual ambulance services agency and the needs of the communities served. It is very common for CP duties to be combined with paramedic duties in a split role, in part, because continuing to respond to 9-1-1 calls allows the CP to maintain paramedic knowledge and skills, and an active paramedic license. It also allows the agency to operate more efficiently and continue to provide services when there are no 9-1-1 calls to respond to.

Another consideration – especially when promoting a trained and certified CP from within the organization – is the need to back-fill the paramedic position.

During your planning phase, use information collected from community needs assessments, discussions with hospitals, long term care providers and physician clinics, performance expectations in any contracts negotiated with health care providers and productivity estimates for the number of visits, travel times, administrative time, etc., to develop an initial estimate of the CP workload for your agency.

a. Developing a Job Description

A job description will effectively communicate job responsibilities to candidates and will become the hiring manager's guide when developing effective interview questions and evaluating the qualification of applicants. A job description will become a valuable tool after the hire as well, as it can be used to complete performance evaluations and address performance challenges.

The following should be included in the Job Description:

- Purpose of the position
- Primary job responsibilities
- Workload
- Exempt/Non-Exempt classification
- Minimum qualification requirements
- Competencies – knowledge, skills, abilities
- Physical requirements of the job

If your agency does not currently use job descriptions, a template with required competencies has been included in the Resources section at the end of this module.

b. Developing Interview Questions

It is important to develop an Interview Form with set questions to ensure that all candidates are asked the same core questions to assess their knowledge, skills, abilities, core competencies and organizational fit. This tool can become invaluable when evaluating candidates and determining who to hire. A sample Interview Question Template has been included in the Resources section at the end of this module.

c. Advertising the Position

As discussed above, experienced paramedics who are promising CP candidates are frequently identified internally, sponsored to become CPs and promoted to CP positions on graduation.

If the agency is interested in considering external candidates, CP education programs may be the best route to reach candidates, given the small number of CP graduates in Minnesota.

As the number of CPs grows in Minnesota, traditional recruiting methods will probably become more successful. These include advertising or posting on college, hospital and veterans job boards, state Workforce Centers and EMS Publications/Websites.

Posting the position internally is a best practice that may assist in filling the position with a qualified applicant.

d. Selecting the Right Candidate

As noted, the most common approach to building a CP program in Minnesota has been to build CP capacity from within. In many cases, agencies have identified potential CP candidates from internal staff, and assisted them as they completed CP coursework and clinical training. Internal promotion can strengthen an organization – not just for the promoted CP, but also for other staff who see the potential for advancement.

So when it comes to selecting the right candidate, some agencies will have an internal CP trained and ready to move into the role. Others will need to search for the right fit. Effective hiring can and should take time. Skipping important steps or making a subjective selection could result in a poor hire that causes you to start the process all over sooner rather than later. When evaluating the candidates for selection, look for candidates who:

- Has 4 – 5 years of experience as a paramedic or EMT
- Is an expert communicator -- written and oral
- Has ample field/clinical experience
- Has the ability to create trusting relationships
- Is dependable, responsible, and self-directed
- Is respectful
- Is open minded
- Has knowledge of health care systems
- Has experience with multi-professional, team-based work
- Is a motivated lifelong learner
- Has knowledge of health maintenance and promotion
- Spends ample time with patients
- Is committed to the organization

Use the information gathered from the interview as well as the background/reference checks and ask the following questions:

- What are the right evaluation metrics for your agency and the position?
- What attribute or characteristic are most influencing your hiring decisions?
- Were you able to determine which candidate demonstrated genuine integrity and character? If so, which one did it the best?
- Who demonstrated the values that best align with your agency?

Members of the interview team may include the CP Program Manager, Medical Director, co-workers of the incoming CP, the Human Resources representation and possibly external partners.

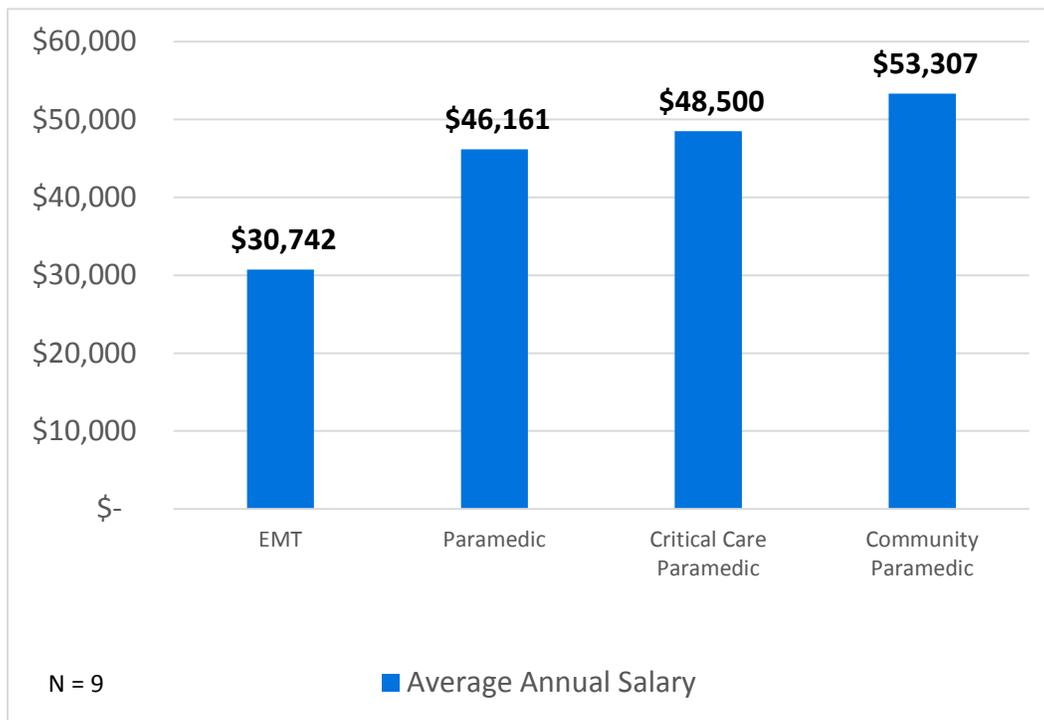
e. Compensation

Most CPs in Minnesota are employed full time. However, as mentioned above, many perform a split role of providing both CP services and responding to 9-1-1 calls as a paramedic, while others provide full time CP services. Staffing for CP services is dependent on the needs of the individual agency and the community served. Regardless, as full time employees, CPs generally receive salary and fringe benefits. The

salary may vary depending on the location of the agency, for example, rural or urban. Salaries may also vary by the CP’s seniority and length of service as a paramedic.

Salary averages for Community Paramedics operating in Minnesota were obtained from the December 2015 Minnesota Ambulance Survey conducted by The Paramedic Foundation, published by MDH in 2016⁵⁰.

Figure 6: Average Annual Salary



Source: (TPF Ambulance Services Survey, 2015)

While the average CP salary in Minnesota is over the 90th percentile compared to paramedics in this region of the country, the actual CP salaries by agency vary up to \$30,000 per year. The survey captured anecdotes that paramedics currently seeking to become CPs are generally well-seasoned and often have more than 20 years in the field, which likely contributes to CP salaries being higher, on average, than paramedic salaries.

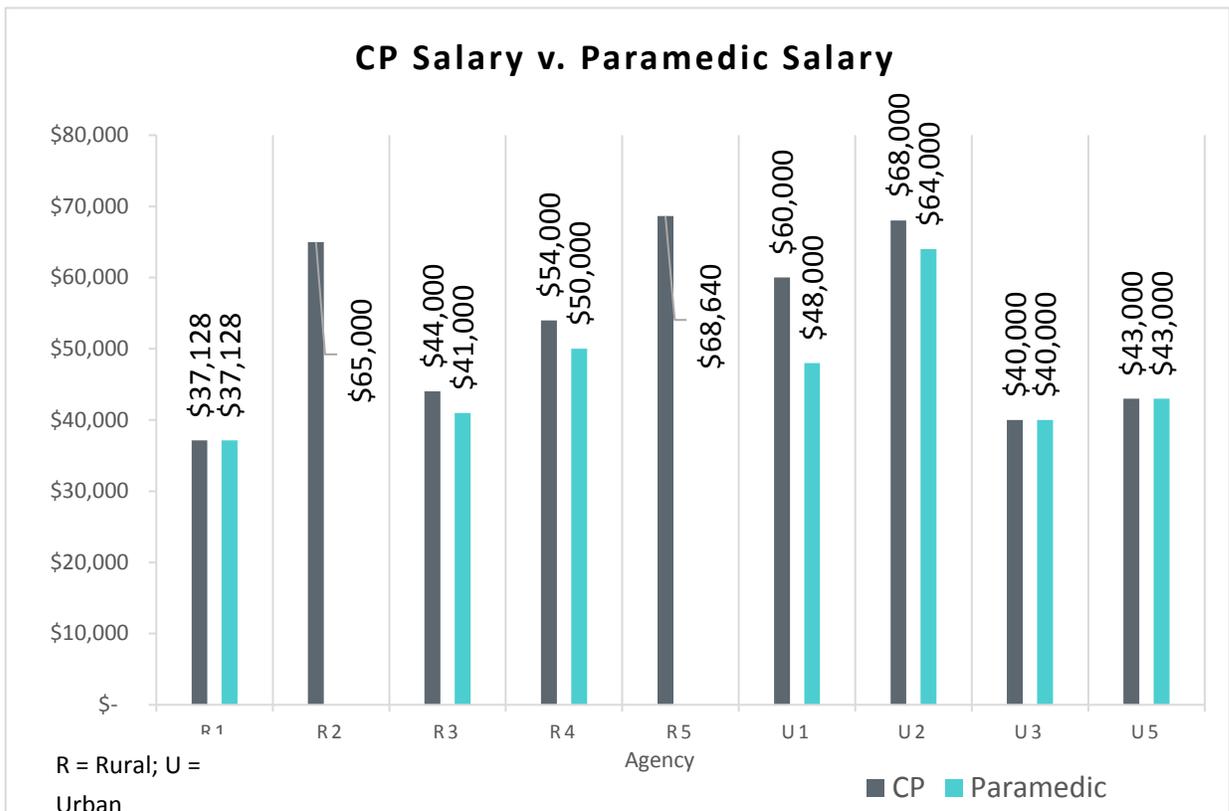
Figure 5 represents the average staff salaries by professional designation within the Minnesota agencies with CP programs – i.e., CP salary vs paramedic salary in the same

⁵⁰ <http://www.health.state.mn.us/divs/orhpc/workforce/emerging/toolkit/cpamb2016.pdf>

agency. Community Paramedic salaries are generally higher, due in large part to the increase in skills and responsibilities required to perform the job.

The Ambulance Survey also looked at whether CP salaries varied consistently by urban or rural location, or by hospital-based, non-profit or for-profit. When evaluating the individual agency responses, no such correlations were found, except for the most “remote” rural agencies, where CPs were more likely to be on the lower end of the salary scale. In *Figure 7*, rural and urban agencies are denoted in the chart by an “R” for rural and a “U” for urban.

Figure 7: CP and Paramedic Salaries by Agency



Period: May 2014 (Data extracted on December 28 2015)

PRACTICE TIP: *Burnout is a real problem in EMS, especially with paramedics. By creating a new rung on the career ladder, the Community Paramedic role can help retain valued employees in an organization, it can leverage years of experience into a new role, and it can extend the careers of men and women who have demonstrated unparalleled commitment to the health and welfare of their community.*

7.2 Onboarding and Integration

Onboarding refers to the way in which new employees acquire the necessary knowledge of the organization and the position to successfully apply their skills and abilities to the job.

Most agencies will have an initial orientation process in place for their newly hired paramedics. This process would be the same for the CP and will generally occur prior to beginning their work out in the community, and should include the following:

Phase 1 – Orientation for Paramedics (if new to the organization)

All Community Paramedics who are new to the organization should go through a probationary period for a paramedic, prior to the orientation for Community Paramedics. This initial probationary period – if needed – is usually three months, and may be extended based on circumstances or additional training required. The initial probation period generally includes:

- review of a the new organization’s protocols and procedures
- review of skills in providing 9-1-1 response care (these are often completed by a training officer in larger agencies and the Medical Director)
- completion of a "ride along" with a seasoned paramedic
- successful completion of the probationary period, as determined by the Medical Director.

Phase 2 – Orientation for Community Paramedics

Once initial paramedic probation period has been completed, the CP usually enters a second orientation process that is specifically geared to the type of work the CP will be doing for the organization. The CP orientation process includes the following:

- information technology training for the use of the electronic health record (EHR) (usually a hospital/clinic version of EPIC, CERNER, eClinical Works, Practice Fusion, etc.). If EHR capability is not in place, the CP should be trained how a paper record of each patient encounter will be completed and scanned/faxed to the patient's clinic of record.
- training on the use of a tablet or laptop by the CP program
- completing a review of CP protocols
- meeting other members of the health care team
- completion of "ride along(s)" with a seasoned CP
- successful completion of a probationary period as a CP, as determined by the Medical Director.

Throughout both orientation processes, the CP participates actively in continuous quality improvement (CQI) initiatives with the Medical Director, if CQI is underway at the agency.

PRACTICE TIP: *Maintaining professional boundaries can be a challenge with the CP role. CPs are by nature, helpful people. They want to improve the health of their patients, and they work with patients in a more intimate way than most providers. It may be appropriate for a CP to drive a specific patient to an appointment, but it may not be appropriate for another patient. There are gray areas between helping a patient achieve wellness and maintaining boundaries – which Medical Directors need to be in tune with.*

Integration

Once orientation is complete, the relationship between the CP and the Medical Director will evolve and grow, depending on the needs of the patients and the community, the partnerships with other providers that involve the CP’s work, and the skillset of the CP.

It is recommended that the CP attend all meetings with care teams and providers responsible for the care of the CP’s patients. This may include scheduled meetings to discuss care plan implementation, discharge planning meetings, or ad hoc meetings to address changes in the patient’s situation.

It is also recommended to schedule at least monthly meetings between the CP and the Medical Director. These meetings are a chance to discuss organizational protocols, review individual cases, discuss educational opportunities, and to develop strategies to build and strengthen relationships with other providers and the community.

7.3 Supervision and Management

a. Medical Director’s Supervision of the CP

The CP functions under delegated practice of his/her medical director. As such, it is imperative that the CP operates by a set of guidelines developed by this physician. To ensure that the process is seamless, a strict adherence to the principles of continuous quality improvement (CQI) must be followed. This concept is no different from what is expected of the EMS medical director in providing supervision for his/her paramedics in the area of emergency 9-1-1 response.

The components of this supervisory role can be divided into three areas: prospective oversight, concurrent oversight, and retrospective oversight. Through prospective oversight, the CP medical director must develop guidelines of patient care that are supported by modules of training. As the CP moves into the community to do his/her work, the CP medical director must use concurrent oversight to assess the skills of his/her extenders, by doing “ride along(s)”, offering “skills day” training (i.e., training to allow CPs to complete new clinical training requirements), and by being available for consultations as needed (this may be accomplished by various means of telecommunication). Lastly, the CP medical director must provide retrospective oversight by doing periodic case reviews with his/her CP’s. This should be done on a regular basis, depending upon the frequency and intensity of the service.

b. Employer's Supervision of the CP

Supervision of the CP's care delivery is the responsibility of the Medical Director. However, the CP's day-to-day supervision of assignments, performance and continuing education training as an employee may be given by a separate manager(s) within the agency. While the ideal supervisory structure would have this position reporting directly to an Operations Manager, organizations have different requirements and needs, and the supervisory structure should fit that need. CPs may also have multiple reporting relationships as their schedule could require them to perform as a Paramedic or as a CP. Defining these relationships clearly for day-to-day operations and in the Job Description will allow for effective communication, resulting in less confusion for the CP, agency leaders, and employees.

Performance management and ongoing communication will help to improve and maintain the CP's performance. The process includes setting and evaluating clear and specific expectations and providing periodic informal and formal feedback. When an employee has multiple reporting relationships, it is the responsibility of all supervisors to coordinate this feedback as it relates to the specific duties the employee performs for them. Most agencies will have a performance management process in place for their current employees. The CP should be included in the same process. A sample performance evaluation form template is provided in the Resources listed at the end of this module.

PRACTICE TIP: *Safety is a concern when CPs are out in the field, working in people's homes – and supervisors need to plan for it. For example, some organizations double-up for certain patients, meet the patient outside of the home, or try to avoid the potential for any inappropriate patient behavior by matching patients with CPs of the same gender. Scheduling frequent check-ins while the CP is out in the field is an easy way to maintain contact, and some agencies are using available technology to stay aware of a CPs location. It is a good idea to connect with the patient's providers and consult health records for any history of violence before sending a CP to their home. A CP should always have the option of terminating a visit or ending a course of treatment with a patient.*

c. Community paramedic competencies

Although the education CPs receive promotes the development of skills in interdisciplinary collaboration, and clinical problem solving and decision-making, not all skills are taught by the training program. Detailed explanations of training, education levels, entry-to-practice standards and skill maintenance of CPs should be discussed at the agency level to ensure competence in performing specific services and expanded practice roles. Such services and roles include but are not limited to knowledge of wellness, prevention, principles of health teaching, cultural competencies, chronic disease management and roles and scope of other health care team members. The CP should be skilled in the following competencies:

- The CP must be competent in defining and maintaining the professional boundaries of the CP position;

- The CP must be competent in defining the term “health” and must have the ability to recognize and address the social determinants of health in their own community;
- The CP must be competent in identifying available health care and community services, and in informing patients and the community about those services through various teaching methods and partnerships;
- The CP must be competent in understanding and performing community mapping and community health assessments;
- The CP must be competent in identifying community health needs and developing strategies to meet those needs and build community capacity;
- The CP must be competent in performing the variety of clinical interventions included in the CP role;
- The CP must be competent in sharing information that relates to EMS and Public Health specific prevention programs⁵¹.

Prior to the CP working in the field, the Medical Director must be confident that the CP is competent in these roles.

d. Ongoing education and training for employed CPs

As mentioned in the Education and Training section of the Toolkit, in order to recertify as a Minnesota CP, every two years the CP must show evidence of having completed 12 hours of continuing education in community paramedicine topics approved by the Medical Director. Continuing education options include refreshing knowledge obtained during initial education, learning about new procedures, staying current on trends in primary care around specific disease states, or learning about the social values of new immigrants entering the community, among other relevant topics. Continuing education is also important for quality performance and professional development. Opportunities for continuing education and tracking of CEU credits is discussed in the Education and Training Module of the Toolkit.

e. Resources For Hiring, Onboarding and Supervision

To access the following Resources, go to: <http://paramedicfoundation.org/toolkit>.

- Job Description Template
- Interview Questions Template
- Performance Review Template
- Policy and Procedure Manual Examples: ECPS and Scott County CP Protocols

⁵¹ Community Paramedic Curriculum version 3. Copyright 2012 by the North Central EMS Institute and The Paramedic Foundation

8. Financing

As an emerging care delivery system, community paramedicine does not have payment systems in place from most payers. The primary exception to this is in Minnesota with the 2011 passage of legislation and establishment of Medicaid payment for the Emergency Medical Technician – Community Paramedics (EMT-CP). Minnesota law requires Minnesota’s Medicaid program to pay for Community Paramedic (CP) services. Accordingly, Minnesota Medicaid (“Medical Assistance” in Minnesota) created a fee schedule reimbursing CPs through the program’s Medical Director as the billing physician. The services are billed on a professional basis and are reimbursed in 15-minute units.

Although Medical Assistance is the only Minnesota payer explicitly paying for community paramedicine, other options may exist for receiving reimbursement on a fee-for-service basis for community paramedicine services. The options primarily center on billing Medicare for CP services as an “incident-to” service to other physician services.

Beyond the fee-for-service model, other payment options exist. Community paramedicine is being used in Minnesota by some health care providers under the umbrella of their Medicare Accountable Care Organization (ACO) or Medicaid Integrated Health Partnership (IHP). In these “shared savings” arrangements, the lead hospital or physician group may or may not receive direct reimbursement for the CP on a fee-for-service basis, but may generate a financial return by using the CP program to lower the cost and achieve quality goals for a defined patient population in Medicare or Medicaid (the payer). In general, these payers make “bonus” payments to an ACO or IHP for providing patient care at higher quality and lower cost to the payer than benchmarks based on historical data. Examples of these “value-based” models, in which CP services are already demonstrating a contribution, are discussed in Module Five of this toolkit.

Looking toward the future of the regulatory and payment processes for CP services, the Center for Medicare and Medicaid Innovation (CMMI)⁵² is currently testing six CP projects around the country, as well as a number of others that include Community Paramedics. Depending on the results of the studies, Medicare payment changes may be enacted in the near future that would reimburse for community paramedicine services, although there is no current proposal to do so.

8.1 Community Paramedic Reimbursement in Minnesota

Minnesota provides two potential avenues for the reimbursement of CP services through the Medicaid program: fee-for-service and an Accountable Care Organization shared savings/shared risk program. Minnesota Medicaid, or Medical Assistance (MA), is the only

⁵² <https://innovation.cms.gov/>

Minnesota payer known to be currently reimbursing for CP services using a fee-for-service billing model. However, managed care organizations under contract in the Prepaid Medical Assistance Program (PMAP) to serve Medicaid enrollees must also cover CP services. Other payers such as private insurers may be paying for CP services, but none are known at this time.

8.2 Minnesota Medicaid Fee-for-Service reimbursement

The Minnesota Medicaid fee-for-service model allows CP services to be billed under the ambulance Medical Director’s physician NPI number. The billing Medical Director, or “pay-to-provider” must use an outpatient billing form to submit bills. Claims are paid on a per unit basis, in 15-minute increments, for the time spent face-to-face with the patient (mileage and travel time are not directly reimbursed).

Current guidance is available on the Minnesota Department of Human Services website⁵³ in the Medical Assistance Provider Manual page detailing Community Paramedic Services. Always check the Provider Manual page for the most current coverage and payment policies and procedures. As of publication of this document, the provider manual included the following policies:

a. Eligible providers

Emergency Medical Technician – Community Paramedic (EMT-CP) who:

- Are certified by the Minnesota Emergency Medical Services Regulatory Board (EMSRB)
- Are employed by an MHCP-enrolled ambulance service
- Have a service scope agreement, based on the paramedic’s skills, with the Medical Director of the ambulance service

b. Eligible recipients

Recipients enrolled in most Minnesota Health Care Programs (MHCP programs) are eligible for Community Paramedic services.

c. Community paramedics assist in the care of recipients who:

- Receive hospital emergency department services three or more times in four consecutive months within a twelve-month period
- Are identified by their primary care provider at risk of nursing home placement
- May require set up of services for discharge from a nursing home or hospital
- May require services to prevent readmission to a nursing home or hospital

d. Covered services

Services must be part of the care plan ordered by the recipient's primary care provider (physician, advanced practice registered nurse (APRN) or physician's assistant). The primary care provider consults with the ambulance service's Medical Director to ensure there is no duplication of services.

Either the primary care provider or the Medical Director must coordinate the care plan with all local community health providers and the local public health agencies, including home health and waiver services, to avoid duplication of services to the recipient. Medical Assistance covers the services listed in Module Three.

e. Non-covered services

Medical Assistance does not reimburse for travel time, mileage, facility fees or services related to hospital-acquired conditions or treatments

f. Billing and documentation

Always refer to DHS's Billing Policy⁵⁴ for the most current MHCP billing policies.

The MHCP-enrolled Medical Director of the ambulance service employing the Community Paramedic must bill the Community Paramedic services based on the following criteria:

- Bill using the 837P
- In the "Treating Provider" field, enter the Medical Director's NPI
- Enter the clinic, hospital or ambulance service's NPI/UMPI in the "Pay to" field
- Use code T1016 with modifier U3
- Place of service is 12 (home)
- Bill in 15 minute increments (one unit = 15 minutes)
- More than half the time (eight minutes), must be spent performing the service face-to-face in order to report a unit. Supplies used by the Community Paramedic in direct relationship to the illness or injury are considered incidental to the service and not separately billable to MHCP. Complete documentation should be kept on file.

8.3 Federal Payment for CP Services

Federal regulations do not currently contain specific guidance for payment of CP services, and no known agencies have billed Medicare for CP services. However, federal regulations do contain guidance on how certified health care professionals such as RNs, LPNs, etc, may be used in relation to physician services. These regulations could be extended to CPs if they are certified or licensed health care professionals.

You may want to keep in touch with CP developments to learn when Medicare begins paying CP claims, or you may want to attempt to bill Medicare and see if it works.

The program regulations under which CP services would likely be reimbursed include:

a. “Incident to” billing guidelines

Currently CPs are not recognized by federal regulations as a physician or a non-physician practitioner like Physician Assistants or Advanced Nurse Practitioners. Therefore, the supervising physician or non-physician practitioner responsible for the patient’s care governs medical services provided by a CP. The pertinent regulations related to payment for the provision of services not provided by a physician or non-physician practitioner are referred to as “incident to” regulations. This means that the services are billable under a supervising physician or non-physician practitioner’s billing ID if the services provided are related to a care plan they initiate during a patient face to face visit and they meet additional criteria.

Medicare generally allows in-home “incident to” visits without a physician present only when the patient is home bound in a medically underserved area in which there is no home health agency. At the time of publication, no known CP programs have successfully billed Medicare for CP services. However, current information explaining “incident to” billing is accessible on [The Paramedic Foundation toolkit resource web page](#) and includes:

- “Incident to” CP services provided in a physician’s office (CPs employed by or contracted to the clinic).
- “Incident to” CP services provided in a patient’s home

Current information explaining how “incident to” billing is coded by clinics is also available on [The Paramedic Foundation toolkit resource web page](#) and includes, in a single document:

- Level 1 Established Patient Code
- In Home Visits
- Annual Wellness Visit
- Transitional Care Management
- Chronic Care Management

8.4 Payment for Types of CP Services

CPs in Minnesota are providing the full breadth of services described in this toolkit. It is important to understand which services may currently be separately or collectively reimbursable and which may not, especially important for Medical Directors who may not be familiar with billing processes for these services.

This section is not intended as a comprehensive list of services that may be provided by CPs. Rather, it is intended to be a guide to focus on categories and examples of services provided by CPs in Minnesota. It is also intended to serve as an illustrative discussion of the reimbursement for the different types of CP services. The list of services provided is based upon a 2015 survey of the agencies providing CP services in Minnesota, the results of which can be found in the Community Paramedic Environmental Scan⁵⁵.

The fee-for-service system is the only system under federal and state payment programs that would directly make separate payments for distinct CP services. Other payment systems are not considered in this section because 1) payment would likely either be directly negotiated with a granting organization or client; or, 2) would be handled through an agreement in an accountable care organization (ACO), or some other entity formed to share global or bundled payments.

CP Services Eligible under Public Fee-for-Service Health Programs

CP Service Categories	Medicare	Medicaid
Care Coordination	Yes, in some instances such as Chronic Care	Yes, for Chronic diseases and Post Hospital Discharge
Evaluation and Management Services	Yes, generally through "incident to" billing	Yes, for numerous services
Medical Procedures	Yes, generally through "incident to" billing	Yes, where approved by Medical Director
Patient Visit Management	No, part of payment for other service	No, part of payment for other service
Population Health Services	No	No
Preventive Care	Yes, generally through "incident to" billing	Yes, when health assessment, chronic disease management, or vaccines

⁵⁵ <http://www.health.state.mn.us/divs/orhpc/workforce/emerging/toolkit/cpenv2016b.pdf>

a Evaluation and Management Services

An evaluation and management service (E/M) is a service specifically defined by the Centers for Medicare and Medicaid Services (CMS) and the American Medical Association through the Current Procedural Terminology (CPT) codes. This service is essentially the patient history, examination, and medical decision making related to the condition identified. CPs do not perform E/M services entirely by themselves, but services performed by CPs may be related to a physician's E/M service. In fact, to be billable to Medicare a service must be related to an initial physician service, which would frequently be billed as an E/M.

Minnesota CPs identified the services below as types of services that they provide with some frequency to their patients. These services would fall within the scope of what would be considered an E/M service for a physician. These types of services may at some point be billable to Medicare provided they are performed in a manner consistent with the "incident to" billing rules. For Medicaid billing rules, the types of services below may fit within the health assessment, chronic disease monitoring and education, medication compliance, immunizations and vaccinations, laboratory specimen collection, or hospital discharge follow-up care categories eligible for Medicaid reimbursement.

- Differentiate injury patterns associated with specific mechanisms of injury (e.g., falls, elder abuse)
- Manage chronic disease (e.g., diabetes, asthma, Coronary Artery Disease)
- Manage patient's status using diagnostic tests (e.g., pulse oximetry, chest radiography, capnography)
- Manage patient's status using laboratory values
- Manage patients/clients experiencing a transitional medical condition (e.g., post-operative care, hospital discharge, home health discharge, rehabilitation)
- Manage patients/clients experiencing an acute medical condition
- Measure vital signs
- Monitor chronic disease (e.g., diabetes, asthma, Coronary Artery Disease)
- Monitor intravenous therapy
- Monitor wound care
- Perform an initial comprehensive history and physical assessment exam
- Perform an ongoing comprehensive longitudinal history and physical assessment exam
- Perform post-partum visits
- Perform well baby checks
- Screen for chronic disease (e.g., diabetes, asthma, Coronary Artery Disease)

- Use invasive monitoring for the purpose of clinical management (e.g., Ventricular Assist Device, Pacemaker, AICD)

b. Medical Procedures

CMS and the Minnesota Medicaid program have separate categories of reimbursement (although payment does not differ for Minnesota Medicaid, whereas Medicare pays differently depending upon the appropriate code billed for the service) for CP care that may be referred to as medical procedures. These services fall outside of the definition of E/M services (patient history, exam, and medical decision) but represent reimbursable services performed by a practitioner such as a CP. Similar to the discussion above for E/M services, Medicare may reimburse CPs for these services provided they meet the “incident to” rules under the supervising physician’s billing identification code. Minnesota Medicaid would likely pay for these as “minor medical procedures approved by the ambulance Medical Director” under the Medical Director’s NPI, or billing identification code.

- Administer blood products
- Administer breathing treatments
- Administer intravenous therapy
- Administer point of care testing (e.g., drug tests, glucose monitoring, INR, iSTAT)
- Catheter replacement
- Change wound dressings
- Feeding tube insertion
- Fluid replacement
- Manage mechanical ventilation (e.g., CPAP/BIPAP)
- Provide airway care (e.g. Stoma, Cric care)
- Provide basic oral health services (e.g., fluoride varnishing & oral health activities)
- Suturing
- Tracheostomy tube replacement
- Wound care

c. Care Coordination

The care listed below that is being provided with at least some frequency by Minnesota CPs may fall within Medicare’s definition of care coordination services. Within the last few years Medicare has added billable codes to the Physician Fee Schedule for chronic

care management (CPT 99490)⁵⁶ and transitional care management (CPTs 99495-99496)⁵⁷. These codes cover some of these activities below, but the rules are extensive and should be carefully reviewed. The “incident to” rules would apply for CPs who provide these services, however general physician supervision would also apply to these codes after an initial face-to-face visit with a physician. These codes are covered in more detail in the Toolkit section on policies and procedures for billing CP services.

Minnesota Medicaid fee-for-service may also cover some of these services under the “health assessment, chronic disease monitoring and education, medication compliance, immunizations and vaccinations [and] hospital discharge follow-up care” categories. However, some of these, such as prepare patient/client to navigate the health care system independently, may only be reimbursable following a hospital discharge or in conjunction with another service like chronic disease monitoring. Also, because MN Medicaid pays by time rather than by individual service, providing three services versus just one would not be reimbursed more if those services were provided within the same 15-minute increment.

- Collaborate with health professionals to ensure continued care of the patient/client
- Collaborate with the health care team in the management of chronic disease (e.g., diabetes, asthma, Coronary Artery Disease)
- Communicate with health professionals to ensure continued care of the patient/client (e.g., condition, reaction to interventions, significant incidents)
- Communicate with patient/client to ensure continued care (e.g., medication adherence, follow-up care)
- Coordinate health services for patients/clients
- Determine need for community resources (e.g., Mental health, substance abuse, public health, social services)
- Develop a network of resources for patient/client
- Participate in a plan of care to meet an individual’s needs
- Prepare patient/client to navigate the health care system independently
- Provide referrals to community resources (e.g., Mental health, substance abuse, public health, social services)
- Serve as a patient/client advocate (e.g., program enrollments, liaison with health care professionals)

⁵⁶ <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/ChronicCareManagement.pdf>

⁵⁷ <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Transitional-Care-Management-Services-Fact-Sheet-ICN908628.pdf>

d. Preventive care

Medicare’s “incident to” billing rules would allow a physician to bill for a CP or another licensed health care professional who provides the services below in the context of an annual wellness visit (AWV) or a level 1 clinic visit. Minnesota Medicaid would likely pay for these services under the health assessment, chronic disease monitoring and education, or immunizations and vaccines categories.

- Assess safety risks for the patient/client (e.g., disease, falls, environmental health hazards)
- Assess the safety of the work environment
- Educate on identified health care goals
- Educate on proper use of health care resources
- Participate in wellness clinics (e.g., immunization and screening)
- Perform a physical safety inspection (e.g., home, property, vehicle)
- Provide oral health education and/or screening

e. Patient visit management

The following activities and services are not separately reimbursable services in the absence of one of the other reimbursable services listed in other sections. For instance, accessing patient records would not be reimbursable separately for Medicare or Medicaid, but would be integral to another reimbursable service such as chronic condition management or suturing.

- Access patient/client electronic and/or paper medical records
- Assess safety risks for the CP (e.g., unsafe situations, animals, diseases)
- Determine patient/client service eligibility
- Document patient/client visits and follow-up care in health care records
- Evaluate related health records (e.g., lab results, medication list, most recent visit summary)
- Identify cultural variables affecting patient/client care (e.g., Language, Religion, Sexual Orientation, Ethnicity, Race)
- Identify medical variables affecting patient/client care (e.g., autism, physical disabilities, dementia, age)
- Identify mental health variables affecting patient/client care (e.g., cognitive disorders, substance disorders, schizophrenia and psychotic disorders, anxiety)
- Identify social determinants affecting patient/client care (e.g., individual, community, transportation, economics, environment, social support)
- Identify special needs variables affecting patient/client care (e.g., autism, abuse, neglect, malnutrition, PTSD, medical literacy)

- Maintain patient confidentiality (e.g. HIPAA)
- Operate within the financial framework to provide health care

f. Population Health Services

The services listed below would not be considered separately reimbursable for Medicare or Medicaid reimbursement unless they fit in one of the above categories such as a billable immunization administration, although they may be integral to the CP practice and mission. In the context of a global payment system or an ACO, a CP program may be able to get financial support for these activities through population based payments, or they may be activities that are supported by grants or contributions.

- Assist in pandemic preparation for the community
- Increase community awareness of health prevention and promotion
- Participate in the community’s health assessment as it applies to the population’s needs
- Provide service with the local public health agency (e.g., immunization, disease investigation, TB-DOT)
- Provide service with the local social service and aging agencies (e.g., adult protection, child protection, senior services, housing)

8.5 Summary

Once Medicare begins reimbursing for CP services, many of the services that Minnesota CPs provide would likely be reimbursable under Medicare “incident to” payment categories in the clinic or, in certain cases, home visits. A very similar set of the services is also reimbursable under Minnesota Medicaid fee-for-service reimbursement rules. It is important to emphasize again that the “incident to” billing rules for Medicare don’t provide the same flexibility for billing CP in home visits without the physical presence of a physician. Medicare generally allows in-home “incident to” visits without a physician present only when the patient is home bound in a medically underserved area in which there is no home health agency. Medicare regulations provide an exception to the rules on in-home “incident to” visits based upon state law, but CMS has provided little guidance on this exception. Based on the differences in fee-for-service payment rules for Medicare and Medicaid, CP programs would likely have to provide services in a different manner for Medicare patients and Medicaid patients. This may cause some operational difficulty when trying to capture fee-for-service payments for both Medicare and Medicaid. It may be for this reason that currently no Minnesota CP program is billing for CP services under Medicare rules. Where a provider is not seeking fee-for-service payments and is instead using grants or seeking ACO/IHP bonuses, payment rules should have much less impact on the means of CP care delivery.

8.6 Resources for Financing

To access the following Resources, go to: <http://paramedicfoundation.org/toolkit>.

- Incident to CP Services in a Clinic
- Incident to CP Services in a Patient's Home
- Incident to CP Services Clinic Coding and Billing

9. Quality Measurement and Program Evaluation

Measuring the quality of CP activities and evaluating CP programs is important for understanding and improving patient care, for improving CP program performance and for demonstrating the impact of CP work.

The appropriate indicators to use to evaluate a CP program will flow from the intended key audience(s) of the evaluation based on the values of those audiences.

This module will describe the various CP data collection efforts in progress at the national and state level as well as some of the challenges identified with the tools used to collect and report data. It will also highlight the importance of using patient satisfaction surveys as a measurement tool

9.1 National Data Efforts

As of August 2016, there were no standard data elements or quality performance and outcome measures found at the national level for CP programs. However, below are some tools that are emerging nationally that will aid in data collection and reporting.

a. Centers for Medicare and Medicaid Innovation Grants

The Centers for Medicare and Medicaid Services, through its Innovation program (CMMI) has funded six community paramedicine programs. The first round of agencies funded will have completed their three-year funding cycle in summer 2016. CMMI made significant investments with each grantee in requiring specific measurements of quality and efficiency. Over the coming months, CMMI is expected to make their measures and results public.

b. National Consensus Work

A group of EMS agencies around the country that were early adopters of CP programs began to create outcome measures from CP activities in 2014. The group settled on an initial core measures set and has invited national associations and experts to help further refine the draft outcome measures and to start examining process measures for specific interventions.

The national consensus work is still in progress, but the work is considered open source and is accessible to everyone. The version of outcome measures that was public in summer 2016 has been provided as an attachment to this report and may be a useful source for program planning.

The national consensus set contains about 50 measures. It is a comprehensive measures set from which CP programs can select common core measures and other measures that fit their program's specific goals.

This is the only known national effort creating measures through national consensus, and thus these measures are likely to become the first standard to become widely used and benchmarked.

Below are the measures The Paramedic Foundation identified as the most important measures from the national data set for Minnesota CP agencies to track:

- Primary care utilization
- Medication inventory
- Patient Satisfaction
- Adverse outcomes
- Ambulance usage
- Emergency department usage
- All-Cause hospital readmissions
- Ambulance transport savings
- Hospital emergency department savings
- All-Cause hospital readmission savings

The full Minnesota Recommended CP Measures document, with discussion of rationale and data sources, can be found in the Resources section at the end of this module.

9.2 Data Collection Efforts in Minnesota

Since an external source to benchmark CP data is not yet in place, Minnesota programs are using their data internally as well as sharing definitions and processes with each other. The Minnesota Ambulance Association⁵⁸ has established a periodic conference call between the agencies where they will have structured time to share successes, issues and data with each other. That committee will be a key in creating commonality around data collection and turning the data into information that is able to be benchmarked and useful. Contact the Minnesota Ambulance Association to participate in these calls.

Below are examples of some of Minnesota CP Program data collection and measurement efforts, along with performance results generated with the data:

a. Allina Health EMS

The primary focus of Allina's CP program is reduction of hospital re-admissions. Allina measures 30-day re-admission rates for all patients that CPs have seen with a home visit. They try to see patients within 48 hours of discharge and follow up

⁵⁸ <https://mnems.org/>

one week later. They are seeing patients identified by their health system as high or moderate high risk for re-admission. Allina has a 5% readmission rate for all diagnoses of the patients seen by the CPs. They have a 2.9% readmission rate for acute MI and heart failure patients. They also review return ER visits within 30 days to identify high utilizers.

Allina's IT data specialist is working to get additional information out of their electronic medical record system for:

- How often Community Paramedics make a referral;
- How often education was provided;
- Estimated health care cost savings; and,
- Patient satisfaction.

Allina has created a CP module within its EPIC electronic health record. They are working to improve their ability to mine CP data from EPIC in 2016.

b. Meds 1 Ambulance (Rural, public health)

The primary focus of Med 1's CP program is on public health, and they collect basic data such as goal attainment and patient and family input. They use data points such as the presence or absence of safety threats, health impact (detectors, immunization status, etc.) and the determination if impact mitigation has occurred and how it was accomplished. The most important data their county desired was the cost impact, and this is measured by cost comparisons involving "in-home therapy vs office-based therapy," "in-home care vs. out of home placement for care," "assisted living vs SNF", etc.

The goals of the *Meds-1* CP program that are organized around the Triple Aim are linked in the Resources section at the end of this module.

c. F-M Ambulance⁵⁹ (Rural)

F-M Ambulance (F-M) is examining how CPs impact ED & inpatient utilization pre/post CP intervention. They have experienced an average 40 percent reduction in ED use and an average 30-35 percent inpatient reduction. In addition, they see

⁵⁹ <http://www.fmambulance.com/default.aspx>

slight declines in patient medical appointment no show rates. F-M tracks blood pressure averages for all CP patients and blood pressure are trending downward an average of 15-20 points systolic with program intervention. They also track diabetics' A1C's, which have trended down an average of 1-2 points. Payor, age, and gender are used to see trends among groups. The PHQ-9⁶⁰ – a screening instrument for depression -- has also shown a slight downward, or positive trend in scores. BMI's have been relatively flat.

F-M's CP program's list of data points include:

- Start of Service (date)
- Termination of Service (date either by removal from care team, death, no further encounters)
- ED Visits 6 months prior to CP services
- ED Visits 6 months after CP began services
- Total System Encounters (appointments, admissions, etc.) 6 months pre/post CP services
- No show volume and rate 6 months pre/post
- Inpatient stays/nights 6 months pre/post
- Chronic conditions (DM, HTN, depression, substance abuse)
- Blood pressure pre/post intervention
- A1C pre/post intervention
- Payor
- Age
- Gender
- PHQ-9 pre/post intervention
- BMI pre/post
- Date of death (if applicable)

d. Hennepin County Medical Center EMS

The Hennepin County Medical Center (HCMC) CP program's primary focus is on the homeless, ED discharges and readmissions, and they are collecting a robust amount of data and analyzing it for performance. They are looking at the number of referrals versus the number of patients contacted, and have categorized the

⁶⁰ http://www.phqscreeners.com/sites/g/files/g10016261/f/201412/PHQ-9_English.pdf

referrals by the priority statuses of extreme risk for ED readmission, high, rising and general.

HCMC is also tracking ED and hospital readmissions before and after CP interventions. For the combined group of ED and hospital readmissions they have achieved a reduction of 38% when comparing a six-month period for each patient. Other results HCMC has achieved include 159 fewer readmissions after CP connection. Analyzing its data, HCMC has calculated that if each readmission were for only one day the CP program savings would be \$238,500.

HCMC's CP program wish list of additional data collection elements is available in the Resources section at the end of this module.

e. North Memorial Ambulance

North Memorial Ambulance's (North Memorial) primary focus is their Medicaid ACO and their data collection and reporting is likely the most aggressive in Minnesota. The program is the largest in the state. North's CP program is closely tied to other hospital departments, and they are working on specific coding within the EPIC electronic health record to produce information that is useful and actionable. They are also closely linked to interdisciplinary primary care teams and are watching team data in addition to CP data.

North's readmission data is linked to a goal of reducing readmission while increasing primary care visits. They have a 52% success rate of seeing patients at home after meeting with them in the hospital pre-discharge. North is using patient surveys extensively to assess their performance. When tested against a control group they have achieved an increase in patient favorable responses to questions like "in general how would you say your health is", "how confident are you that you can monitor your health", and "I clearly understand the purpose for each of my medications".

North Memorial has also achieved a high degree of patient satisfaction with community paramedics. When measured on a 1-5 scale where 5 is the highest satisfaction, patients rate their CP satisfaction is at:

- 4.84 – Do you feel the CP made it easier to figure out the healthcare system given your healthcare needs?
- 4.93 – How well do you think they focused on your specific needs versus a general healthy lifestyle?
- 4.98 – Do you feel like the CP respected you as a patient?
- 4.87 – Do you feel like the CP empowered you to manage your own health moving forward?

f. HealthEast Care System⁶¹ (Mental health focus)

HealthEast Care System's CP program focuses on visiting mental health and substance abuse patients within 48 to 72 hours of discharge. Their goal was to address the patient's discharge plan, ensure medication compliance and to identify needs and refer patients to outpatient or community services. HealthEast measures reductions in 30 day readmissions, decreased length of hospital stays, improved seven- and 21- day mental health follow up clinic visits, and increased medication compliance.

Their success includes 80% of patients having a visit scheduled with a mental health practitioner within seven days of discharge, and 94.5% of patients were taking their prescribed medications. In addition, the CP program led to partnering with embedded system pharmacists, a new partnership with the Home Health team and they secured buy in from their system's IT professionals.

g. Itasca County (Rural, reducing costs)

In Itasca County, the CP program focuses on vulnerable adults. From January to April of 2016, the program worked with 88 patients, among whom were seven adults for whom the care plan called for admission to a nursing home. The CPs were able to assist with four adults to the extent that they were able to go into assisted living facilities instead of more expensive skilled nursing homes. Assisted living care is \$1,000 per month on average compared to \$4,500-\$8,500 per month for nursing home care. Furthermore, another 42 patients were referred to in home nursing care/personal care assistance services. Itasca County Public Health determined that if CP assessments were not performed to support these patients' care plans, or referrals were made to other types of care services, these patients would have likely been referred to a nursing home or assisted living facility at a much higher cost to the third party payer or county.

9.3 Data Collection Tools and Challenges

Finding or creating data collection tools for CP programs can be challenging at this early stage of development. Those planning or operating CP programs are encouraged to join the data discussions occurring under the auspices of the Minnesota Ambulance Association and to learn from the examples discussed above to design a suitable data collection approach for their program. Common challenges to CP data collection are introduced below.

One of the challenges with CP programs collecting and reporting data is the variety of electronic health record (EHR) systems. None of these systems is currently capable of integrating with the HL7 compliant EMS EHR or the National EMS Information System (NEMIS), which in Minnesota is called MnStar. NEMIS originated before community paramedicine. The National Highway

⁶¹ <http://www.healtheast.org/>

Traffic Safety Administration (NHTSA) owns the process, infrastructure and reporting tools of NEMSIS, and the national NEMSIS technical assistance center has convened a committee to create NEMSIS data elements for use in CP programs. Because there is no deadline for creating the elements and getting them through the HL7 compliance process, it is not possible to estimate when MnStar will support measurement of CP data.

Because EMS and other EHR systems are not yet compatible, Minnesota CP agencies are using different methods, systems, and programs for charting medical records and for data collection and analysis, as discussed in the examples above. Some agencies are using EPIC while others are using NEMSIS compliant software, and others are using paper or Microsoft® Excel. Some of the software vendors of the NEMSIS product have robust and fairly easy tools for reporting. In the future, CP data information that goes into the system for these agencies will be able to generate reports about encounters and treatments. However, those tools will not be able to do analysis across the health care continuum anytime soon.

Another challenge is that traditional data collection tools for EMS and EHR systems for clinical practice don't offer enough detail to derive the appropriate data for analysis. Lab values are not found in a typical NEMSIS compliant medical record, but can be found in a clinical charting tool. CP programs may want to look to home care based software to find a blend of patient care notes over a long term and the ability to connect with other health care clinical data systems. NEMSIS compliant programs rarely offer a bridge to clinical programs, making it more difficult to share data and patient information from practice to practice.

A confounding factor of using multiple patient care record systems is the fact that data needs for 9-1-1 work differ from data needs for an on-going care type of situation common in CP work. This can make the barrier to entry for small and rural EMS departments difficult, as they may have to use multiple programs or rely on paper Subjective, Objective, Assessment and Plan (SOAP) notes for the follow-up. This can make consistency of data difficult, and finding past records for the patient so that the CP can view changes in progress for the patient is often a problem.

The best blend of EHR charting systems would allow for entry of SOAP notes, lab values, vital signs, in-home findings such as "home safety inspection" and medication reconciliation. Other needed features would allow the agency to build reports that were meaningful, yet comply with data reporting standards. There is currently no software provider for EMS offering this type of tool that will also upload data in a NEMSIS compliant format.

Over time the ability to integrate EMS and other health care EHRs will improve. In the meantime, some agencies are having some success in using Health Information Exchanges to import and export data to and from disparate systems.

9.4 Importance of Patient Satisfaction Surveys

Patient satisfaction is increasingly seen by state and federal government and payers as a vital measurement of quality within the health care industry – and payment is increasingly dependent on patient satisfaction outcomes. However, many EMS agencies do not yet

routinely collect customer/patient satisfaction survey data. If CP programs are going to be working in the health care environment, programs need to accept and embrace the fact that patient satisfaction is a critical success factor. In fact, collection of patient satisfaction data is a clear opportunity to showcase the strengths of the CP profession – CPs are uniquely positioned to meet patients where they are, and to improve overall patient experience.

Through patient satisfaction surveys CP programs can glean useful quality data from their patients, share that data with payers and stakeholders, and find ways to improve service and communication

There are multiple examples of patient satisfaction surveys in use⁶². Selecting the right survey should depend on the specific patients and services provided.

It is possible to start with a short and simple patient satisfaction survey that will allow the program manager to begin measuring, and to see useful data and trends over time. Feedback to the individual CP can help them to improve their practice and learn what patients like and dislike about the service⁶³. And it can be very useful to document positive outcomes when building new partnerships or expanding within a larger organization.

9.5. Resources for Quality Measurement

To access the following Resources, go to: <http://paramedicfoundation.org/toolkit>.

- Sample Patient Satisfaction Survey
- HIE Value Proposition EMS Factsheet
- HIE Value Proposition EMS Memo
- Issue Brief National EMS Use Cases
- MN Recommended CP Measures
- National Metrics for CP Interventions
- HCMC Data Wish List

⁶² <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/>

⁶³ Measuring Patient Satisfaction: How to Do It and Why to Bother. *Family Practice Management*. (January 1999). <http://www.aafp.org/fpm/1999/0100/p40.html>

10. Return on Investment

An important consideration in starting a community paramedic program is the economic viability of the program over the long term. One way to plan for the success of a program is to assess the Return on Investment (ROI). CP programs in Minnesota are beginning to assess ROI. As discussed in this toolkit, some are tracking the impact of their programs and beginning to demonstrate the ability to reduce patient utilization of the health care system and costs. As these programs expand and are able to provide care on a larger scale, they should see further improvements through economies of scale.

10.1 Calculating Return on Investment

The concept of ROI is relatively simple: it is the net profit from an investment expressed as a percentage of the investment.

$$\text{ROI} = (\text{EARNINGS} - \text{COST}) / \text{COST}$$

Example:

A business owner buys a \$1,000 machine that can make 100 widgets, and the raw materials cost \$500. He sells the 100 widgets for \$25 each. His earnings are \$2,500, and his costs to generate those earnings are \$1,500. Therefore, his ROI is $(2500-1500)/1500$ or 66.6%. This is clearly an oversimplification, but serves to illustrate the point.

The financial return may take different shapes depending on the goals of the program. For instance, calculating ROI for a program targeting Medicaid patients that intends to receive fee based payments may be very different from calculating ROI for a program that intends to reduce readmissions for a hospital system. In the first example, there should be identifiable revenue. In the second example, the return may be the hospital's potential avoidance of a penalty. The economic value of the avoidance of the penalty would vary depending on the share of the results attributable to the CP program. Needless to say the second example of a return is more complex than the first! Calculating ROI can become even more complex when factoring in the possibility of serving new patients and communities with the CP – leading to internal referrals, thus establishing greater market share and profits for the organization.

Cost is the second consideration of ROI. The cost calculation should include labor and non-labor costs. Labor costs would take the form of CP salary and related benefit expenses, or contract payments, as well as support and administrative staff. Because a CP program is likely to share support staff with an EMS or health care system, it is probable that the cost of the support staff would need to be allocated to the CP program. The non-labor costs would include items such as supplies, transportation, training, technology (EHRs, laptops, mobile phones), office space and related expenses (utilities and maintenance), and administrative expenses (legal, accounting, human resources). Similar to the labor expenses, many of the non-labor expenses may be shared with more than just a CP program, which would mean that an allocation of those

expenses should be done between the different supported programs in order to get an accurate calculation.

Once the calculations of the return and cost are completed, those numbers can be entered into the above formula to arrive at the program's expected ROI. An ROI Workbook is included in the Resources section at the end of this module.

Beyond the financial calculations of ROI, there are non-economic returns such as improved market reputation due to delivering better service and more economically efficient care to patients. Other non-economic returns may be improvements in paramedic job satisfaction as CPs are able to advance their skill set and take on new challenges.

Another consideration in the analysis of ROI is the time horizon of the ROI analysis. In some cases a positive ROI may take many years to realize based on extremely large start-up costs in the form of capital investment or R&D. To this point, many health care systems are investing heavily to developing programs to reduce the cost of patient care because the health care industry is changing payment models, and their health system needs to develop the skills to thrive in those future payment models. In this sense, the ROI of innovative programs such as CP would be realized in the long-term once the new payment models are more fully implemented rather than in the near or medium term. For instance, if the health care industry shifts more fully to a capitated, value-based payment system, an individual health care system may receive more of a flat monthly payment to manage the care of a patient population rather than revenue based on fee-for-service. In this instance, the health care system that can provide the care at the lowest overall cost should achieve a competitive advantage over higher cost providers.

Based on a survey of CP programs in Minnesota for this Toolkit, no CP program has developed a rigorous economic analysis of the ROI of a CP program. However, numerous responses were received detailing how the CP programs were finding success in demonstrating the avenues for fiscal savings or future revenue streams. Based on these results, it appears that CP programs are being started and operated without a strong focus on short or medium term financial ROI. They are more likely being started to improve patient access, address local health care gaps, capture greater market share for the EMS or health care system, develop innovative care delivery systems aimed at achieving lower cost care delivery, or some other reason.

10.2 Resources for Return on Investment

To access the following Resources, go to: <http://paramedicfoundation.org/toolkit>.

- Pro-forma Budget
- ROI Workbook