



**NORTHWEST
COMMUNITY
EMERGENCY
MEDICAL
SERVICES
SYSTEM**

STRATEGIC PLAN

2016-2020

2018 Edition



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Pillars of Excellence

Why do we exist?

MISSION

The Northwest Community Emergency Medical Services System (NWC EMSS) is a team of highly educated emergency specialists committed to providing quality emergency care to the communities we serve.

We continue to strive for preeminence through a philosophy of total quality, continuous improvement, and advocating the appropriate use of technology and research to compassionately meet emergency care needs.

Where are we headed?

VISION

The NWC EMSS is viewed as the gold standard of excellence and quality by our customers and colleagues. System initiatives are collaborative endeavors planned, organized, implemented, and evaluated by multidisciplinary teams of System members.

How will we behave?

VALUES

- **Excellence:** The system culture embraces excellence as a core value. We are committed to providing patient care and educational experiences of exceptional quality, to achieve academic excellence, exemplary service, and superior clinical practice, quality and safety. This requires us to innovate and drive forward best-practice evidence-based care.
- **Commitment:** We are committed to those we serve and their individual needs are at the center of all decisions. This includes providing person-centered, efficient, humanistic and value-based care. Student achievement and customer satisfaction drive all processes.
- **Integrity:** We continually strive to do the right things in the right ways.
- **Compassion:** We genuinely care about the well-being of people.
- **Respect and Collaboration:** We optimize teamwork and partnerships to deliver optimal outcomes; treating everyone with dignity and respect. Each system member has equal value and an equal opportunity to contribute to system activities.
- **Accountability:** Each person is accountable for their own actions.
- **Citizenship:** The system conducts all business in adherence to applicable laws and its code of ethics.
- **Justice:** Fair and equitable due process is offered to all.
- **Fiscal responsibility** and careful stewardship of all resources is the cornerstone of business planning.
- **Advancing Knowledge:** We are dedicated to professional development and the process of applying and sharing knowledge. Quality education and a continuously learning System is fundamental to professional growth and clinical excellence.

MOTTO

"Quality People, Quality Education, Quality Care"

These belief statements undergird the foundation of all System planning and activities. The path we continue to take (strategies) to accomplish these pillars and the important framework that impacts our planning are defined in this document. As we address clinical outcomes, operations, reimbursement, quality, risk, and patient and stakeholder satisfaction together, we strengthen our System of care and achieve the best possible patient and provider outcomes.

EXTERNAL FORCES IMPACTING OUR PLANNING

History, national statutes, standards, guidelines, models

Before 1970, EMS in the United States was inconsistent and fragmented. There was no standardized education or credentialing of EMS providers beyond basic first aid and ambulances were designed without standards. There were no systems in place to coordinate the care and transport of the sick and injured. To use a computer software analogy, you might say we were operating in Version 1.0 of EMS (Robins, 2017).

The modern era of EMS began in 1966 with the publication of the landmark white paper "Accidental Death and Disability: The Neglected Disease of Modern Society" from the National Research Council of the National Academy of Sciences. That same year, the Highway Safety Act (Public Law 89-564) was passed to reduce the number of fatalities and injuries that occur on U.S. roads and highways. Subsequent to this paper, we started to use the term "EMS," established standards of training for EMTs and paramedics, created design criteria for ambulances and talked about "systems" for delivering service rapidly and consistently (Robbins, 2017).

Fast forward to August, 1996: The National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA) Maternal and Child Health Bureau, published the ***Emergency Medical Services Agenda for the Future***. The "AGENDA" is a consensus document created, endorsed, and embraced by the national EMS community through a Steering Committee and a Blue Ribbon Conference. It examined the previous three decades of EMS, capsulated the state of EMS in 1996, and looked ahead to create a vision for the future. The authors designed it to be used by government and private organizations at the national, state, and local levels to guide planning, decision making, and policy development regarding EMS.

National planners envisioned EMS systems of the future as being community-based and fully integrated within the over-all health system. They believed that EMS personnel should have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. These new practices were to be developed from redistribution of existing health care resources and integrated with other health care providers and public health and public safety agencies. The proposed design was to improve community health and result in a more appropriate use of acute health care resources. EMS would remain the public's emergency medical safety net. The "AGENDA" proposed continued development of 14 attributes of an effective EMS system. The NWC EMSS Advisory Board combined these elements into 12 strategic initiatives and placed them into our strategic plan. For a full text of the "AGENDA" access the NHTSA web site at www.ems.gov.

Emergency Medical Services at the Crossroads (2006) was the work of The Committee on the Future of Emergency Care in the United States Health System. The Committee was tasked with examining the full scope of emergency care, from 9-1-1 and medical dispatch to hospital-based emergency and trauma care. They discovered that insufficient progress had been made in implementing the AGENDA and envisioned a system in which all communities would be served by well planned and highly coordinated emergency care services that are accountable for their performance. All EMS and public safety offices should be fully interconnected to ensure that each patient receives the most appropriate care, at the optimal location, with the minimum delay.

The NEW VISION for EMS

The Federal Interagency Committee on EMS (FICEMS) supported a major revision of the AGENDA (*work started in 2016*). The Assistant Secretary for Preparedness and Response (ASPR) has been working closely in partnership with NHTSA and other federal partners, along with EMS stakeholders to develop a new document to guide the evolution of EMS over the next 30 years. The final document will be called **Agenda2050 Envision the Future**. A second Straw Man Document seeking national input was released in January 2018. Information is available at: <http://emsagenda2050.org/>

EMS 3.0 will guide operations In Value-Based Healthcare Systems of the future

Over the last 50 years, EMS Version 2.0 saw us broadening the limits of what EMS could do and substantially refined the expectation of what an EMS system should be. It broadened our scope of patient care and laid a path for the future we should strive to attain (Robbins, 2017).

“Now, we're on the cusp of the next fundamental evolution in EMS. A new model, spearheaded by the National EMS Management Association (NEMSMA), National Association of EMTs (NAEMT), National Association of State EMS Officials (NASEMSO), National Association of EMS Physicians (NAEMSP) and the National Association of EMS Educators (NAEMSE), called EMS 3.0 was unveiled in 2017 after multiple years of work and national summits.

The hallmarks of best practices in a high performance EMS System fall into three domains: Clinical proficiency, Operational effectiveness, and Fiscal efficiency.

New paradigm: Provide the right care, in the right place, at the right time, based on person needs and choice, and at the right cost.

EMS 3.0 describes the changes necessary for EMS to integrate into the broader U.S. healthcare system reforms currently underway. It recognizes that as American healthcare transitions to a value-driven, outcomes and evidence-based model, so must EMS. It focuses on the need for our profession to fall in line with the **Institute for Healthcare Improvement's (IHI) Triple (now quadruple) Aims:**

- Improve the patient experience of care, including quality and satisfaction
- Improve the health of populations
- Reduce the per-capita cost of healthcare (IHI)
- Add now the goal of improving the work life of health care providers, including clinicians and staff.

To do this, we must change the framework for how EMS healthcare is funded, financed, and measured. EMS 3.0 underscores that how we structure our systems and deliver care needs to change in order to be successful, both for our patients and for our agencies' fiscal health. Performance standards will be tied to patient outcomes, including patient satisfaction.

For info on IHI Triple Aims see: <http://www.ihl.org/engage/initiatives/TripleAim/Pages/default.aspx>
For info on EMS 3.0 see: <http://naemt.org/initiatives/ems-transformation>

So, we must prepare for a future that is rapidly approaching (if not here already) and best projections indicate that it will be consumer-centric, digitally-enabled, and highly integrated. This will require us to be internally nimble. Efficient, effective clinical care and service delivery will be essential, with success rewarded and failure punished through reimbursement methodologies implemented by the Centers for Medicare and Medicare Services (CMS) and adopted by the health insurance industry.

Our future value will depend on old and new factors: Rapid response, quality clinical assessment and care on scene and safe transport to an appropriate healthcare facility will only be part of the picture. We will be expected to contribute to optimizing the health status of individuals and their communities and help them navigate through the healthcare environment which includes a whole host of new alternate response, assessment, care, discharge or disposition options.

EMS is already viewed as a versatile, mobile, community healthcare resource. It will now play an increasingly core role in supporting the well-being of the community through data-driven, population oriented, evidence-based, and safe approaches to prevention, response, and clinical care. EMS organizations must collaborate with their community partners and have access to the resources they need, including up to date technology and a highly educated, healthy workforce (Straw Man poll, 2018).

EMS System operation will be based on six guiding principles (in no particular order)

- Inherently safe and effective
- Integrated and seamless
- Sustainable and efficient
- Reliable and prepared
- Socially equitable
- Adaptable and innovative

Northwest Community EMS System Strategic Plan 2016-2020 (18)

EMS agencies will demonstrate their value by expanding their services to include: community health screenings, injury prevention initiatives, mitigation strategies for chronic repetitive patients, assistance programs to improve patient compliance with healthcare plans, well-being checks, mechanisms to route patients to the appropriate segment of the healthcare system, expanded on-scene care to eliminate the need for transport, and strengthening bonds between patients and primary care practitioners” (Robbins, 2017).

Word of caution: While innovation is imperative, it is not limited to technology or bioscience, but extends across all aspects of operations. Leaders have to act and think differently to advance their organizations during this time of industry change. Regulatory uncertainty creates a vacuum that innovation will fill. Existing providers and incumbent health systems have advantages in driving transformation - but if they don't act (MIH), others will.

Not all innovations are created equal. Transformative innovation delivers better value as measured by outcomes, prices and customer experience. (“2017 CEO Forum Report: Delivering Excellence in the New Healthcare World,” Huron Consulting Group Inc. and affiliates, Aug. 25, 2017). Thus our ultimate value will be measured and performance judged against national and perhaps international standards and by those who pay the bills, our partners in care, and the consumers of our service. Incentives will expand from reacting/responding to acute emergencies to promoting wellness and preventing future episodes.

Some of the documents influencing the NWC EMSS strategic plan:

- National EMS Education Agenda for the Future A Systems Approach (2000)
- National Core Content: The Domain of EMS Practice
- The National EMS Scope of Practice Model (will be updated in 2018)
- National Model EMS Clinical Guidelines (Sept. 2017 edition)
- National Guidelines for Educating EMS Instructors
- National EMS Education Standards (January 2009)
- The Committee on Accreditation of Educational Programs for the EMS Professions (CoA) Standards & Guidelines (January 1, 2016) and the Standards Interpretations.
- The Illinois EMS Systems Act (Source: P.A. 81-1518; 88-1.), the corresponding Rules and Regulations, and the Illinois Department of Public Health (IDPH) Division of EMS & Highway Safety EMS Strategic Plan approved September 2010.
- The National EMS Research Agenda; Federal, CDC, and State directives with respect to emergency preparedness planning; the National EMS Information System (NEMSIS) data sets and IDPH directives regarding their implementation. See Appendixes for full background information.

The NWC EMSS Strategic Plan reflects a balance of effectiveness, efficiency and equity. Planning and practice is based on community and customer needs, regulatory requirements, national standards, and technological advances while being ever considerate of scarce human and economic resources that must be applied in a manner that optimizes the preparation and competency of EMS personnel and promotes the safety, health and welfare of all persons using best practice models.

The System echoes the strategy adopted by the American Hospital Association in terms of how it can best serve our members as we all undergo transformation and planned disruption to thrive in the new healthcare environment as a cohesive EMS System:

We will proactively explore trends of the future, work with our members and other stakeholders to focus on providing value, guidance and forward-thinking solutions through the key strategies of:

- Serving as a hub of knowledge exchange (free flow of information that enables smarter, quicker action) and a clearly defined EMS governance structure doing the right things at the right level with hardwired roles and responsibilities with built-in accountability for key stakeholders.
- Advocacy and representation at the Regional, State and National levels.
- Providing EMS and healthcare thought leadership for members and stakeholders.
- Providing high quality educational resources so we effectively navigate through change.
- Providing incentive structures that encourage alignment with the System's mission, vision, values and plan and discourage counterproductive behavior.

“Wise men make more opportunities than they find.” Sir Francis Bacon

NWC EMSS Strategic Plan

| Topic | Page |
|---|-------------|
| Integration of health services | 6 |
| EMS research..... | 7 |
| Legislation and regulation..... | 8 |
| Education systems | 9-10 |
| Public education/illness and injury prevention | 11 |
| Public access/Communications systems..... | 12 |
| Clinical care | 13 |
| Information systems | 14-15 |
| System finance | 16 |
| Human resources..... | 17 |
| Medical direction..... | 18 |
| Continuous quality evaluation and improvement..... | 19-20 |
| Emergency preparedness | 21-22 |
| Appendix A: Integration of Health Services | 23 |
| Appendix B: EMS Research | 23 |
| Appendix C: Education programs..... | 24 |
| Appendix D: Public education | 27 |
| Appendix E: EMS access and Communications systems | 27 |
| Appendix F: Clinical care | 28 |
| Appendix G: Information systems..... | 28 |
| Appendix H: System finance..... | 28 |
| Appendix I: Human resources..... | 28 |
| Appendix J: Medical direction..... | 28 |
| Appendix K: Continuous quality measurement and improvement..... | 29 |
| Appendix L: CMS Medicare and Medicaid Fee Schedule | 29 |

INTEGRATION of HEALTH SERVICES

Impact statements

Integration of health care services helps to ensure that the care provided by EMS does not occur in isolation and positive effects are enhanced by linkages with other community health resources and integration within the health care system (EMS Agenda for the Future).

Ultimately, the EMS 3.0 construct must become integrated with the ongoing development of paramedicine as a profession. Paramedicine as a discipline is much broader than the current roles performed by EMS personnel and includes the totality of the roles and responsibilities of individuals trained, certified, licensed, and credentialed as EMS practitioners. Paramedicine is a professional space that begins with emergency medical response and intervention, but expands to a health profession focused on assisting individuals, families, and communities in attaining, re-attaining, and maintaining optimal health. This includes preventing medical emergencies and injuries and, where they cannot be prevented, mitigating the impact emergencies during and after the event (EMS 3.0).

Integration of EMS into the health care system is essential to adequately plan for and respond to threats to national security, mass casualty events and pandemic diseases. This integration will expand the traditional roles of EMS providers, assist in offsetting healthcare provider shortages, expand healthcare networks for the consumer, and assist in addressing the special needs of all segments of the population.

Position

The NWC EMSS remains a key voice in proactively setting reasonable expectations of EMS performance and collaborating with provider agencies to determine the use and deployment of EMS personnel in traditional and non-traditional roles as those needs are identified and resources are available.

Actions

1. The NWC EMSS views this as an evolving priority in which we actively engage, especially with respect to the foreseeable implications to human resource allocation, reimbursements, selection of receiving facilities, role realignment and expanded scopes of practice after commensurate training and education.
2. Monitor national trends with respect to EMS models of care delivery, reciprocity, and personnel titles and scopes of practice, such as The National EMS Advisory Council Innovative Practices of the EMS Workforce Committee final draft position paper: Changing the Nomenclature of Emergency Medical Services is Necessary (12/16); the Replica initiative for interstate compacts (<http://www.emsreplica.org/>); Mobile Integrated Healthcare, realignment of EMT/Paramedic ratios and enhanced roles for EMTs to optimize efficiency and effectiveness of EMS operations.
3. The System advocates EMS participation in community projects such as prevention programs (Ex: Smoking cessation; stroke, heart attack, diabetes, abuse), community education (CPR, appropriate use of EMS)/public access to defibrillation (PAD) programs, and as liaisons to community groups involved in public health and all hazards planning.
4. Interested EMS personnel are encouraged to advance their education and/or to fill vacancies in health care facilities. If a nursing shortage occurs, it will create hardships for some hospitals and ambulatory care facilities. Paramedics and EMTs are well qualified for nurse expander roles and to serve on multi-disciplinary teams.
5. All System members shall remain proactive in identifying the special healthcare needs of the communities served by the System.

EMS RESEARCH

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| Impact statement | <p>"The future of EMS is indelibly linked to the future of EMS research. This reality provides EMS with its greatest opportunities, its greatest risks, and its greatest single need to depart from the ways of the past. EMS must grasp this quickly closing window of opportunity" (EMS Agenda for the Future).</p> <p>"It is clear that EMS must be integrated with other services and systems that are intended to maintain and improve community health and ensure its safety. We must also focus on aspects of EMS that improve its science, strengthen its infrastructure, and broaden its involvement in enhancing the health of our communities" (EMS Agenda for the Future).</p> <p>"Research is the means by which the goal of advancing and improving the system responsible for prehospital emergency patient care will take place" (National EMS Research Agenda).</p> <p>Performance of high quality EMS research is hindered by five major impediments:</p> <ol style="list-style-type: none">1. Inadequate funding;2. A lack of integrated information systems that provide for meaningful linkage with patient outcomes;3. A paucity of academic research institutions with long-term commitments to EMS systems research;4. Overly restrictive informed consent interpretations; and5. A lack of education by EMS personnel regarding the importance of EMS research. <p><u>Principles of responsible innovation:</u></p> <ul style="list-style-type: none">• <u>Clearly identified need</u>• <u>Balancing safety and efficacy</u>• <u>Generating robust evidence</u>• <u>Continuous reflexive evaluation</u>• <u>Coordinated interdisciplinary action</u>• <u>Effective and proportionate oversight</u> |
| Position | <p>The NWC EMSS believes that the foundation for quality health care practice, education, and systems management is evidence based, obtained from rigorous scientific study. This is true for prehospital clinical practice, the curricula for educating prehospital providers, and EMS system design (National Research Agenda). The System will play a significant role in emergency and out-of-hospital research on a local, regional, and national level. Human, financial, and technical resources are essential in conducting valid studies and, therefore, creative fund raising and capital support will be imperative to meeting this goal.</p> |
| Actions | <ol style="list-style-type: none">1. The System embraces a scientific basis for prehospital practice. New innovations, interventions, educational techniques, curricula, system design, and operating procedures shall be subjected to scientific scrutiny before they are implemented (National EMS Research Agenda).2. Continue to capitalize on funding streams through grants, foundations, academic institutions, or pharmaceutical companies to support the cost EMS research and/or a System research assistant. (NWC EMSS staff).3. Create a collaborative relationship between the EMS System, medical schools, other academic institutions, and private foundations to promote and fund EMS research. (R&D Committee)4. Work with software vendors to develop interfaces between EMS and Hospital medical record software and advocate for linking and/or integrating patient data.5. Continue to report local and national research findings to System members through CE programs. (EMS Educators)6. <u>Focus 2018: Improving the quality and outcomes of cardiopulmonary resuscitation via the use of real-time CPR feedback devices; automated CPR compression devices; and 100% review of all cardiac arrests.</u> |

LEGISLATION and REGULATION

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| Impact statement | Issues relating to legislation and its resulting regulations are central to the provision of EMS in the public's behalf. Legislation and regulations affect EMS funding, system designs, research, and EMS personnel credentialing and scope of practice (EMS Agenda for the Future). |
| Position | The NWC EMSS leadership and Resource Hospital EMS staff will remain actively involved in national, state, county and local EMS planning through participation on Committees, in professional organizations, and through effective communication with elected officials and regulatory agencies. System leadership will routinely monitor and provide comment relative to pending legislation and rulemaking after seeking System member opinions. |
| Actions | <ol style="list-style-type: none">1. Maintain current level of vigilance. Participate in State-wide planning, forums, and processes that review and contribute to legislation and rules that impact the EMS System operation (EMSS staff, chiefs, coordinators). <u>2018 State EMS issues:</u><ul style="list-style-type: none">▪ Filing updated rules to adopt the EMS Education Standards.▪ <u>Rewriting</u> the State EMS Strategic Plan▪ Begin revision of state exam blueprints and item banks based on updated Illinois scopes of practice.▪ Mentoring Paramedic programs to gain CoAEMSP accreditation.▪ Standardizing PHRN education and credentialing.▪ State planning for Emergency Preparedness▪ Resubmission of EMS System plans(?)2. The System will tap into as many information streams as possible, i.e., Ill. Fire Chiefs, Ambulance Associations, IDPH, Illinois Chapter of the American College of Emergency Physicians (ICEP), Illinois EMS Forum, National Association of EMS Physicians (NAEMSP), Emergency Nurses Association (ENA), National Registry of EMTs, National Association of EMS Educators (NAEMSE), publications, websites to stay current with legislative initiatives..3. EMS Administrative Director shall continue to serve as a member of the Illinois Governor's EMS Advisory Council and chair of the State EMS Education Committee <u>while mentoring a successor as chair.</u>4. System members shall be informed and involved in legislative and regulatory initiatives through the website; memos, alerts, CE, and meeting discussions.5. Communication is frequent and bidirectional with governmental officials.6. EMS shall continue to work with IDPH staff to create regulatory processes and remain compliant with EMS rules. |

EDUCATION SYSTEMS

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| Impact statement | <p>“As EMS care continues to evolve and become more sophisticated, the need for high quality education for EMS personnel increases. Education programs must meet the needs of new providers and of seasoned professionals who have a need to maintain skills and familiarity with advancing technology and the scientific basis of their practice” (EMS Agenda for the Future).</p> <p>Adoption of the National EMS Education Standards (2009), National Scope of Practice Model (2007) as amended by IDPH (2016), the national EMS Education Agenda for the Future (2000), the National EMS Education and Practice Blueprint, the national Continuing Education Agenda for the Future, the National EMS Core Content (2005), and the standards and guidelines published by the Committee on Accreditation highly impact class content and how EMS education is delivered.</p> |
| Position | <p>The NWC EMSS Education programs exist to prepare EMS personnel and ECRNs to provide or direct competent, compassionate and patient-centered EMS care. NWC EMSS educational programs will continue to <u>prioritize academic mission</u> while maintaining a standard of excellence by promoting and supporting a professional teaching and learning environment as outlined in the EMS Education Agenda for the Future <u>and other best practice models</u>.</p> |
| Actions | <ol style="list-style-type: none">1. Professional ethical standards and adult learning principles shall govern all System educational programs, learning measurement tools/processes, and practice competency validation methods. Achieving educational objectives in all domains of learning remains fundamental to professional growth and clinical excellence.2. Curriculum design, lesson plans, teaching methods, assessments and measurement for the EMT, paramedic, PHRN, ECRN, TNS, and CE classes shall continue to reflect best-practice models based on research, the National EMS Education Standards and the National Scope of Practice model.3. All educational programs conducted by the NWC EMSS or by a provider agency within the NWC EMSS shall be submitted for IDPH site code approval in compliance with the EMS rules, IDPH and System policy.4. The Education Committee shall continue to provide recommendations to the Chiefs, Provider EMSCs, hospital EMSCs, Advisory Board, Resource Hospital EMS MD, and EMS Administrative Director relative to proposed policy changes for the CE Program.5. Educators shall be mentored <u>and</u> held accountable for maintaining a service driven culture as they model excellence and comply with the National Guidelines for Educating EMS Instructors. All NCH instructors shall gain and maintain IDPH Lead Instructor certification. Competency as an instructor for entry level and CE classes shall be measured through evaluations that meet NAEMSE and CoA measurement criteria. Peer IV Educators must meet this requirement prior to recognition.6. NWC EMSS educators shall continue to work with Provider Agencies to pilot programs that incorporate agency-specific EMS educators. <p>NWC EMSS educators shall collaborate with Providers to further develop the Peer Educator model (1-4) which allows system agencies the flexibility to use in-house educators to supplement in-station education (see Peer Educator Policy).</p> |

**Northwest Community EMS System
Strategic Plan 2016-2020 (18)**

7. The System will continue to seek root causes of performance gaps and explore methods to enhance personal accountability for practice competency and improved learning outcomes.
8. The EMS Administrative Director and program lead instructors shall continue to work closely with Harper College to conduct the entry level EMT and paramedic programs in compliance with all statutory, regulatory, and accreditation standards.
9. 2018: The NCH Paramedic Program shall achieve CoA accreditation.
The paramedic program shall achieve a clean review by the Higher Learning Commission.
The System will continue to explore innovative methods to provide CE.
10. The EMS Administrative Director and CE Coordinator shall continue to refine the process of System Entry based on stakeholder feedback. All measurement tools shall reflect current System practice standards.

For additional background information, see Appendix C

PUBLIC EDUCATION / ILLNESS and INJURY PREVENTION

Impact statements Public education, as a component of health promotion, is a responsibility of every healthcare provider and institution. "EMS has not yet begun to realize its potential as an important public educator. It should accept the challenge to explore innovative ways for educating the broadest possible spectrum of society with regard to prevention, EMS access, and appropriate utilization, and bystander care. EMS must also educate the public and those that purchase services as consumers, so they are enabled to make informed EMS-related decisions for their communities" (Patricia J. O'Malley, M.D.).

"In the future, the success of EMS systems will be measured not only by the outcomes of their treatments, but also by the results of their prevention efforts. Its expertise, resources, and positions in the communities and the health care system make EMS an ideal candidate to serve linchpin roles during multi-disciplinary community-wide prevention initiatives. EMS must seize such responsibility and profoundly enhance its positive effects on community health" (Theodore R. Delbridge, M.D., MPH).

Most situations (incidents, scenes, etc) resulting in injury are POORLY MANAGED RISKS and are thus preventable. Let's take the word, "accident" out of our vocabulary. An accident is something that is not preventable and thus relieves us of responsibility. Prevention is the key to diminish all poorly managed risks (IDPH EMS Strategic Plan, 8).

Position: The EMS System will continue to be recognized as a credible and reliable source of public education resources.

- Actions:**
1. NWC EMSS educators shall work with EMS provider agencies to inform them about the Safe Communities concepts, and identify possible community-based, prevention-oriented partnerships.
 2. NWC EMSS will collaborate with community agencies, organizations and health care providers to identify community prevention needs and the potential roles of EMS personnel.
 3. NWC EMSS will partner with EMS Agencies and System hospitals to promote wellness and the appropriate use of EMS services. See integration of health services.
 4. NWC EMSS will complete the business plan and submit an application to IDPH to launch a pilot Mobile Integrated Healthcare project.

PUBLIC ACCESS / COMMUNICATIONS SYSTEMS

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| Impact statements | <p>The focus of public access is the ability to secure prompt and appropriate EMS care regardless of socioeconomic status, age, or special need. For all those who contact EMS with a perceived requirement for care, the subsequent response and level of care provided must be commensurate with the situation</p> |
| | <p><u>“Together as a field, it’s vitally important that we understand the different cultures, customs and languages that are unique to our communities in order to help with the physical, emotional and spiritual dimensions of healing”. All healthcare providers should strengthen their commitment to eliminate health and health care disparities that continue to exist for our patients. Through these efforts, we should ensure that every person in every community has the opportunity to reach their highest potential for health. Eugene A. Woods; President and CEO Carolinas HealthCare System, 2017 AHA Chair.</u></p> |
| | <p>Universal public access legislation will require cellular companies to report the location of cellular callers to emergency centers of public safety agencies. The FCC will require wireless carriers to provide the location of all cell phone callers to 9-1-1 centers.</p> |
| Position | <p>No financial, technical, legal, social, physical, or age-related barriers to appropriately accessing care via 9-1-1 should exist for those who perceive an emergency. All calls for EMS service should be received by dispatchers with the requisite combination of education, experience, and resources to optimally query the caller, make determination of the most appropriate resources to be mobilized, and implement an effective course of action. All those who legitimately contact an EMS public safety access point (PSAP) with a request for care should receive a level of response commensurate with the situation.</p> |
| Actions | <ol style="list-style-type: none"><li data-bbox="475 1140 1438 1203">1. Dispatch centers will ensure appropriate compliance with state statutes and EMS rules related to dispatch centers and emergency medical dispatchers.<li data-bbox="475 1224 1438 1287">2. NWC EMSS will monitor the progress made by CAD centers in adapting to new technologies to track cell phone users.<li data-bbox="475 1308 1438 1371">3. NWC EMSS will effectively facilitate emergency medical dispatcher training, licensure and relicensure.<li data-bbox="475 1392 1438 1505">4. NWC EMSS will participate in the activities of a standing System Committee composed of EMS Dispatchers and other interested parties to fully implement IDPH rules relative to EMD. The System will work with current dispatch centers to develop QI indicators and processes. |

CLINICAL CARE

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| Impact statements | <p><u>Clinical proficiency, the externally verified provision of quality patient care will have new value determinations that center around compliance with clinical bundles proven through peer-reviewed studies to make a difference in patient outcomes. Clinical bundles for conditions such as STEMI, stroke, trauma, hypoglycemia, and asthma have been published and are supported by organizations such as the Eagles Consortium. Additionally, a single source of quality oversight for all EMS, first response, and ambulance components helps ensure all providers share common credentialing and quality improvement processes (Hooten, 2017).</u></p> <p>"Advances in technology and provider education will enable EMS systems to provide increasingly sophisticated clinical care. The menu of state-of-the art interventions available to patients will be limited primarily by outcomes data and community needs" (Robert E. Suter, D.O., MHA).</p> <p><u>Health care top investment areas over the next three years:</u></p> <ul style="list-style-type: none">• <u>Data analytics</u>• <u>Care redesign efforts</u>• <u>Patient experience improvement</u>• <u>Care coordination</u> <p><u>As patient populations become increasingly diverse, providing culturally competent care is more important than ever (H&H Networks; The 2018 Environmental Scan).</u></p> |
| Position | <p><u>The System is committed to providing safe, timely, competent, compassionate, efficient, effective, equitable, cost-effective, and evidence-based person-centered care to serve the health care needs and wishes of the population. Clinical excellence is the uncompromisable cornerstone for our existence.</u></p> |
| Actions | <ol style="list-style-type: none">1. A System-wide culture is promoted that rewards individual and organizational contributions, innovation, and commitment to achieving excellence in patient care.2. <u>2018:</u> Standing medical orders (SOPs) and practice standards shall be updated and continue to be evidence-based, justifiable based on community health care needs, and mutually defined by the Region EMS Medical Directors Committee with input from all provider disciplines.3. EMS care shall continue to be subject to ongoing evaluation to determine its impact on patient outcomes.4. The System shall continue to have all new technologies, products, and therapeutic interventions systematically evaluated by the R&D Committee for their impact on patient outcomes and appropriateness for EMS use (i.e., <u>meets standards of practice; portable, proven cost-benefit analysis; effective, reliability in the field environment,</u> adds needed value and/or information to out-of-hospital care, meets community health needs) prior to their initiation/implementation.5. <u>The System shall follow evolving literature and make practice changes as needed for airway and cardiac arrest management; early recognition and treatment of sepsis, septic shock, and stroke; will continue to focus on assessment and treatment of the pediatric and elderly populations and those impacted by mental illness, drug abuse, and the opioid epidemic. We will expand our collective use of rescue task force teams and tactical EMS when indicated and authorized.</u> |

"Health Care 2020: Transformative Innovation," Healthcare Financial Management Association, 2016

"An Investor's Insight into Telehealth," The National Law Review, May 3, 2017

"Annual Industry Outlook: The Road to Value-Based Care," HealthLeaders Media, January/February 2017

INFORMATION SYSTEMS - Computer Aided Reporting System (CARS)

Impact statements

"Finding desperately needed answers to many important questions in EMS is hopeless without the development of new ways to collect, link, and analyze valid, meaningful information. This is the very foundation of the future of EMS!" (Daniel W. Spaite, M.D.).

The volume of electronic health care data doubles every 24 months. Although this massive amount of data is brimming with insights, organizations are struggling to unlock its full value. We will need to adopt sophisticated systems that support and enhance decision-making in clinical settings. (Futurescan 2017-2022: Healthcare Trends and Implications, AHA's Society for the Healthcare Strategy & Market Development, 2017)

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 (P.L. 104-191) places comprehensive requirements on the healthcare industry by imposing sweeping standards for the privacy and security of all electronic health information that can be linked to individuals. It also requires electronic transactions for all billing of Federal beneficiaries and a standardized code set. HIPAA preempts contrary state laws unless the state law is more stringent in protecting patient privacy.

Collecting and mining data comes with inherent risk of security breaches that could compromise an organization and the patients it serves. As healthcare system stakeholders are increasingly interested in sharing data with us, there's a need for EMS to understand what real cybersecurity is (Hooten, 2017).

67% of medical device manufacturers and 56% of health care delivery organizations think an attack is likely to occur within a year on a medical device they use. "Synopsis and Ponemon Study Highlights Critical Security Deficiencies in Medical Devices," Synopsis Inc., May 25, 2017.

Position:

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The huge growth and reliance on technology in the healthcare industry to facilitate collection, storage, and reporting of patient data has made it imperative for the NWC EMSS to adapt and use those cost-effective tools that incorporate uniform data elements, employ standard definitions, integrate information systems with other healthcare providers and public safety agencies, link multiple source databases, and generate valid, reliable, and accurate data.

The System is committed to complying with all Federal and state rules with respect to data collection, storage, security and reporting.

Provider agencies and hospitals fully comply with the HIPAA Security Rule relative to EMS PHI:

- **Technologic safeguards:** Technologically driven solutions address how PHI is stored, maintained, backed up, and retrieved and must be incorporated into System practice.
- **Physical safeguards:** All System members will continue to ensure the security of buildings and facilities where electronic PHI is stored, transmitted, retrieved, etc. Only those with a legitimate need to access PHI can enter the area where PHI is stored or used. System PHI shall be stored in a secured office or computers containing PHI will be kept in areas where the public and other unauthorized individuals cannot access them.
- **Administrative safeguards:** EMS agencies shall maintain policies & procedures, conduct training, and enforce best practice models in the ways System members protect the security of PHI.

Actions

1. The System shall collectively collaborate with the Region VIII/IX consortium and Image Trend to continually improve our information systems enabling us to "meet the diverse needs of local, regional and national EMSS that can be integrated with other data systems and are easy to use and do not interfere with the provider's ability to care for the patient" (NHTSA, 2016).

**Northwest Community EMS System
Strategic Plan 2016-2020 (18)**

2. The CARS Committee shall continue to ensure that the EMS electronic data entry and reporting software operates as designed and meets customer expectations.
3. The CARS Committee shall continue to monitor and respond to ongoing needs to update and/or revise the NWC EMSS template, Power tools, clinical decision support (validity rules) features, and/or printing options.
4. The System shall share patient data for quality improvement purposes, achieve economies of scale for financing of ePCR activities, and drive improvements to the Image Trend software.
5. System members will download electronic data to EMS Data Systems in compliance with IDPH rules.
6. The System will continue to ensure compliance with HIPAA Privacy Rules.
7. Hospitals and agencies shall conduct EMS data security audits and HIPAA risk assessments designed to find and mitigate vulnerabilities. Priority concerns: Ransomware, phishing attacks, negligent insiders (“The Rampant Growth of Cybercrime in Healthcare,” Issue Brief, Workgroup for Electronic Data Interchange, March 20, 2017
8. The CARS Committee will continue to follow industry innovations and spearhead projects to use appropriate social media tools to foster communication, information sharing, and networking with System members and provide decision support phone apps.
9. NWC EMSS leaders will continue to make ongoing improvements to the website based on user feedback and identified needs.

Garza, A. (2017). National survey on EMS ePCR usability. Accessed on line: www.naemt.org

Hooten, D. (2017). Best practices in high value EMS. EMS World; accessed on line: <http://emsworld.com/node/219383>

NAEMT. (2016). 2016 National survey data collection, use and exchange in EMS. Paper published by NAEMT on line.

SYSTEM FINANCE and FISCAL EFFICIENCY

Impact statements "EMS Systems, similar to all public and private organizations, must be financially viable. In an environment of constant economic flux, it is crucial to continuously strive for a solid financial foundation" (EMS Agenda for the Future).

The provision of EMS is expensive and reimbursement is becoming more challenging, whether through fees for service or tax subsidies. EMS leaders need to continually seek out new ways to enhance the fiscal performance of their systems. Principles such as regional service delivery, enhanced service delivery, and alternative payment models help improve fiscal efficiency (Hooten, 2017).

The financial incentives in the Medicare Access and CHIP Reauthorization Act will accelerate the transition to alternative payment models not only in the public sector, but also in the private sector. Value-based insurance design will speed patients' understanding of the variation in cost and quality of services among providers. Providers need the infrastructure to monitor their quality and financial performance in near-real time so they can afford to take on risk. "Health Care 2020: Transition to Value," Healthcare Financial Management Association, 2016

Patients are increasingly requesting transport to a facility within their payer networks.

National Medicare Fee Schedule (See appendix L)

Section 4531(b)(2) of the Balanced Budget Act of 1997 added a new section 1834(l) requiring the establishment of a national fee schedule for payment of ambulance services under Medicare part B through negotiated rulemaking. The BBA requires that ambulance services covered under Medicare be paid based on the lower of the actual billed charge or the ambulance fee schedule amount. A national Medicare fee schedule for EMS which stratifies EMS responses into categories based on level of service, each with assigned relative value units to be applied with a geographic modifier to determine reimbursement rates.

Position The System shall continue to conduct all business in a manner that seeks the most value and achieves the greatest return on human, time, and financial investments. All system members are responsible stewards of resources allocated to EMS and all System members comply with applicable statutes and rules with respect to ambulance replenishing and patient billing.

- Actions**
1. The System shall continue to monitor national developments with respect to EMS vehicle replenishing and restocking in compliance with the Office of Inspector General final rule and ambulance billing in compliance with the EMS Fee Schedule.
 2. System leaders shall continue to participate in financial planning and have opportunity to vote on initiatives that require substantial monetary outlays, i.e., education, computerization, and communication systems.
 3. System members shall continue to contribute equitably to initiatives requiring capital investment.
 4. All EMS patient interventions and student expenses shall be subjected to a cost/benefit analyses. Discretionary drugs/supplies shall be removed from ambulances and MedEngines if benefit/use is unsubstantiated. Educational programs shall be redesigned if substantiated based on best practice models to achieve cost savings.
 5. Chiefs/Administrators shall continue to approve educational revenue adjustments for the In-Station program.

Hooten, D. (2017). Best practices in high value EMS. EMS World; accessed on line: <http://emsworld.com/node/219383>

Robbins, V.D. (2017). EMS 3.0 document to guide operations in value-based healthcare systems. Accessed on line: <http://www.jems.com/articles/print/volume-42/issue-1/departments-columns/management-focus/ems-3-0-document-to-guide-operations-in-value-based-healthcare-systems.html>

HUMAN RESOURCES

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| Impact statement | "Regardless of how integration with other health care services and increased use of advanced technology changes the picture of EMS, human resources remain our most precious commodity. Without effective <i>care</i> of our human resources, this exercise becomes academic" (John L. Chew). |
| Position | The NWC EMSS recognizes the stressors that face EMS responders. We respect and will strive to enhance the physical, emotional, and psychological well-being of all personnel. |
| Actions: | <ol style="list-style-type: none">1. The System will continue to work to improve understanding of occupational hazards for EMS workers by compiling an aggregate database and develop strategies to minimize significant exposures. (Chiefs)2. The System will explore methods to achieve cost savings for EMS agencies working with hospital-based occupational medicine departments.3. NWC EMSS educators will provide information to System members relating to occupational issues, physical and psychological, unique to EMS workers. EMS personnel will receive available immunizations against communicable diseases, use appropriate personal protective equipment including latex-free products where necessary, and receive pertinent education relating to stress management.4. The System will ensure that alterations in expectations of EMS personnel to provide health care services are preceded by adequate preparation.5. The importance of health and wellness is highlighted through educational efforts designed to inform EMTs and paramedics about the dangers of smoking, unrecognized diabetes, hypertension, and obesity, etc and promoting the benefits of exercise, healthy stress outlets, etc. |

MEDICAL DIRECTION

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| Impact statements | <p>"Quality medical direction is an essential process to provide optimal care for EMS patients. It helps to ensure the appropriate delivery of population-based medical care to those with perceived urgent needs" (EMS Agenda for the Future).</p> <p><u>The EMS Medical Director or "EMS MD" is the physician appointed by the Resource Hospital who has the responsibility and authority for total management of the EMS System (Title 77: Public Health Subchapter f: Emergency Medical Services and Highway Safety. Part 535 Emergency Medical Services Code Section 535.100).</u></p> |
| Position | <p><u>The EMS MD collaborates with Resource hospital senior leadership, the EMS Administrative Director, EMS System Coordinator, EMS educators, Associate Hospital EMS Medical Directors and Coordinators, EMS Agency leaders and Provider EMSCs, and System members to provide visionary leadership and advance the System toward achieving its mission, vision, and strategic goals and initiatives in compliance with System stakeholder expectations and within full legislative, regulatory, and accreditation compliance.</u></p> <p><u>Innovation is a leadership imperative.</u></p> <p><u>All on-line medical control (OLMC) is provided by qualified physicians and emergency communication registered nurses (ECRNs) with special competency in EMS as defined by the Illinois EMS Act and Rules and System policy.</u></p> |
| Actions | <ol style="list-style-type: none">1. Philosophical and scientific agreement will be sought between the EMS MD and Associate Hospital EMS MDs within the NWC EMSS and with the EMS MDs in Region IX to achieve Region-wide scopes of practice and standards of care.2. All duties and requirements of the EMS MD are completed in a manner that meets statutory and regulatory requirements and System expectations.3. The EMS MD shall engage in outreach activities such as attending System meetings, teaching in entry level and CE classes, and traveling to the EMS Agencies and hospitals so he is visible and transparent in his leadership goals and style, and able to listen directly to System members' concerns, comments, and/or suggestions.4. The EMS MD will encourage Associate Hospital EMS MD participation in System committees and activities.5. Sufficient resources for EMS medical direction are appropriated by all System hospitals.6. Appropriate credentials are held and competency demonstrated by all those who provide on-line medical control, i.e., ECRNs, physicians. |

CONTINUOUS QUALITY MEASUREMENT AND IMPROVEMENT

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| Impact statements | <p>"The ability of EMS to optimally meet communities' and individual patient's needs is dependent on evaluation processes that assess and improve the quality of EMS. Continuous evaluation is essential and should pervade all aspects of every EMS system" (Theodore R. Delbridge M.D., MPH).</p> <p><u>External accountability</u> - Requiring the provider to routinely and publicly report on its performance to an organization or governing body can hold it accountable and helps ensure continual review and enhancement of the system (Hooten, 2017)</p> <p>"We've made great strides in EMS data collection over the last decade. But it's vital we continue that momentum to make sure we're using the information - whether that's to improve the care we deliver, to ensure the safety of our patients and providers, or to guide public health and prevention efforts," (Noah Smith, EMS Specialist with the NHTSA Office of EMS, 2016).</p> <p><u>Institute for Healthcare Improvement (IHI) 2018 Safety resolutions adapted for EMS:</u></p> <ul style="list-style-type: none">▪ <u>Learn from what goes right, as well as what goes wrong.</u>▪ <u>Move from reactive and responsive to proactive and generative.</u>▪ <u>Invest in quality systems for learning, rather than just individual projects.</u>▪ <u>Shift from fear, blame and liability toward humility, trust and transparency.</u>▪ <u>Understand that quality is more than just the avoidance of mistakes and physical harm, but also the pursuit of excellence and optimal outcomes.</u> |
| Position | <p>The system's main reason for existence is to provide quality patient care in the out-of-hospital environment and to meet the expectations of our internal and external customers. In that effort we shall be data, information, and evidence-driven. Our effectiveness shall be gauged by a continuous and comprehensive evaluation of all aspects of the system including structural, process, and outcome measures while being sensitive to issues of confidentiality.</p> |
| Actions | <ol style="list-style-type: none">1. The System will emphasize the value and importance of information and data and recognize the role of information at all levels of sophistication. Further, we shall highlight widespread application of information within EMS agencies and across all components of healthcare and public safety and clarify the role and purpose of national and statewide data collection efforts (Becknell, 2016).2. The System shall advance our "information culture" based on the following priorities:<ul style="list-style-type: none">• Industry-wide prioritization of information• Strong motivation, relevancy and demonstrated improvement• Leaders who champion the use of information• A data- and information-savvy workforce• A continuous feedback loop3. The PBPI committee will continue to provide an opportunity for System members to actively participate in the establishment and modification of System structures and processes to <u>measure and</u> improve EMS care.4. PBPI Committee members shall continue to determine aspects of care to be studied based on identified needs, new System processes or interventions; determine benchmarks or thresholds that should be met; define indicators, generate measurement tools, accurately collect data; analyze the data in comparison to thresholds, determine root causes for process disconnects or outcomes less than targets, suggest tactics to improve performance, and construct reports to be published to system members within two months of data collection. See <u>2018</u> PBPI Plan. |

**Northwest Community EMS System
Strategic Plan 2016-2020 (18)**

5. **Participation rates for each screen:** Target 90% or greater of System members participate in submitting data for each screen and each System Agency submits data in at least 11 out of 12 months each year to ensure adequate population numbers and generalizability to the entire System. Consequences for non-compliance are specified in the PBPI plan. The EMS MD shall continue communicating with EMS members regarding System quality initiatives.
6. Results of data analyses shall be reported as an EMS dashboard showing System performance/outcomes compared against national benchmarks when existent.
7. Recommended action plans shall continue to be presented through CE, to standing System Committees, to System leaders and will be posted on the NWC EMSS web site.
8. The efficiency, effectiveness, and quality of System structure, personnel performance, processes, and customer satisfaction shall continue to be periodically measured and reported.
9. The effectiveness of process improvements will continue to be assessed, analyzed, documented, and reported.
10. The System will continue to assess and monitor key competency and practice indicators.

Becknell, J., Simon, L. (2016, December). *Beyond EMS data collection: Envisioning an information-driven future for Emergency Medical Services* (Report No. DOT HS 812 361). Washington, DC: National Highway Traffic Safety Administration.

Hooten, D. (2017). Best practices in high value EMS. EMS World; accessed on line: <http://emsworld.com/node/219383>

EMERGENCY PREPAREDNESS Pandemics, Terrorism & MCIs

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| Impact statement | <p>Initial responders to a terrorist attack, mass casualty incident, or public health crisis posed by a pandemic illness may include local, county, and city health agencies, hospital staff, members of the EMS community, and a wide range of response personnel in the public health system. These responders need all the information and protection that can be reasonably afforded. We need a strong and flexible public health infrastructure; integrated planning to dovetail public health, municipal, private, and hospital preparedness, and a unified incident command system.</p> <p>Key elements of public health preparedness include “regularly exercised plans, timely access to information, clear knowledge of individual and agency roles and responsibilities, reliable communications systems and connectivity between and among responding agencies” (Harvard School of Public Health Center for Public Health Preparedness www.hsph.harvard.edu/hcphp)</p> <p>The best defense in reducing casualties will be the ability of the public health and healthcare systems, communities, and individuals to prevent, protect against, quickly respond to, mount an appropriate response, and recover from health emergencies that threaten to overwhelm routine capabilities (RAND Corp, 2007).</p> <p>Local communities and hospitals must be prepared to be relatively self-sufficient for several days to weeks following a major incident.</p> |
| Position | <p>The NWC EMSS will actively participate in and support local, regional, state and national planning addressing multiple patient and mass casualty events involving natural and man-made disasters including those perpetrated by weapons of mass destruction or pandemic disease, including the following:</p> <ul style="list-style-type: none">- Incident Command Systems to address mitigation, preparedness, response and recovery operations- Use of the National Incident Management System (NIMS) as the model for emergency response procedures, protocols, and practice- Mass dispensing of medications and/or vaccinations in cooperation with the CDC’s Strategic National Stockpile (SNS) or the state’s predesignated RSS (receipt, store and stage) Chempack sites.- Developing, analyzing, testing, exercising, and revising emergency and contingency plans, including but not limited to, pandemic preparedness, SNS distribution, surge capacity, and continuity of operations requirements.- Enhanced collaboration with local public health departments- Periodic inventory of disaster supplies to insure their currency, integrity and usability in an actual incident.- Establishment of Triage Tag days by EMS Agencies to enhance competency and knowledge retention.- Decontamination strategies- Medical management protocols- Patient destination protocols which may include treat and release, treat and transport to alternate care facilities, or treat and transport to a hospital- Interoperability of communications systems- Coordination with burn centers, trauma centers, hyperbaric facilities, and other specialty centers- Mental health resources- Documentation- Media relations |
| Actions | <ol style="list-style-type: none">1. NWC EMSS personnel shall attend National, State, Region IX, and local Em Preparedness CE offerings/meetings as relevant to the NWC EMSS. |

**Northwest Community EMS System
Strategic Plan 2016-2020 (18)**

2. NWC EMSS personnel will continue to collaborate with key stakeholders in NWC EMSS, Region 9 EP Coordinators and Region 9 EMS RH personnel to maintain consensus on the Multiple Patient Management Plan.
3. 2018: The NWC EMSS shall provide Continuing Education regarding the use of START and JumpSTART triage processes and the use of the State-approved SMART tag system.
4. The System will encourage information sharing – exchange to standardize responses to multiple patient and active assailant incidents.
5. The System will provide on-going resources for biological, nuclear, and chemical agents addressing System SOPs based on local, state, and national disaster guidelines and plans.
6. The System will monitor plans for appropriate distribution of chemical attack antidotes for public safety personnel.
7. The System will work with local Health Departments to create practical plans with respect to mass immunizations, drug stockpile distribution, early surveillance, and infectious patient disposition.
8. The System will encourage law enforcement preparedness with respect to PPE; mask fit-testing, use of tourniquets and hemostatic dressings, etc.
9. The System will encourage System members to serve as members of the Illinois Medical Emergency Response Teams (IMERT) or other disaster response teams. See <https://imert.org/>
10. The System will coordinate with partner agencies to address the health needs of those impacted by a multiple patient and mass casualty incidents.

References

- Chicago Healthcare System Coalition for Preparedness and Response. (2011) National incident management system (NIMS) resource and implementation guide.
- Heightman, A.J. (Nov. 2012). 10 tips to help gear up for MCIs. JEMS.
- Maloney, T. et al. (2013). Incident leadership and management: Dispatch in a post-911 era. Accessed on line: www.911Magazine.com, January 17, 2013.
- NHTSA. (January, 2009). National emergency medical services education standards. www.ems.gov
- State of Illinois EMS Strategic Plan. (2010). Hospital Preparedness Program, p. 27.
- State of Wisconsin EMS Advisory Board – EMS Special Operations Committee. (2010). WI EMS Mass Casualty Incident Response Plan Guide.
- U.S. Department of Transportation. (May 3, 2007). EMS pandemic influenza guidelines for statewide adoption.

Appendix A: INTEGRATION OF HEALTH SERVICES

The National EMS Agenda recommends the following tactics to achieve this strategic initiative:

- Working closely with other public health care systems.
- Working toward referrals and subsequent follow-up. Relationships should benefit all parties by improving understanding of factors contributing to issues involved.
- Community and health care monitoring, which includes data collection and transmission to appropriate community and health care agencies.
- Integration should benefit patients by enhancing and maintaining the continuum of care.
- Care organizations: public/community health agencies; social services resources; police departments.

IMERT teams: The Illinois Medical Emergency Response Team is comprised of hundreds of volunteers from every region of the state. These individuals come from the medical and emergency response community as well as the private sector. The volunteers train to respond to communities impacted by disasters that result in the paralysis or destruction of the healthcare infrastructure. The primary mission is to provide interim medical care by supporting local and regional resources as directed by the Incident Commander. Conditions are often austere, requiring responders to be self-sufficient.

IMERT has responded to numerous emergencies, disasters, and high risk/high profile events around the state as well as to Louisiana in response to Hurricane Katrina.

The IMERT program is multi-faceted and is capable of a flexible, scalable medical response. The other crucial piece for response capability is the logistics component. This group is comprised of volunteers with special skill sets such as; information technology, communications, HAM radio operators, materials management, scene safety, and resource management.

Local emergency planning committees (**LEPCs**) are being established in each of the state's counties under the auspices of Illinois Emergency Management Agency (IEMA). LEPCs are required to (1) have diverse community membership (12 categories), (2) write a chemical emergency response plan (9 elements), (3) publicize the plan through public meetings, (4) exercise the plan annually, (5) update the plan annually, and (6) act as a community repository for information concerning hazardous materials in the area. Our system falls within the Cook County LEPC North.

Appendix B: EMS RESEARCH

The National EMS Agenda recommends the following tactics:

- EMS field providers and managers must learn the importance and principles of conducting EMS-related research.
- Help personnel understand the research that is being conducted and enable them to participate and be supportive.
- Allocate federal and state funds for a major EMS systems research thrust.
- Develop information systems that provide linkages between various public safety services and other health care providers.
- Develop academic institutional commitments to EMS-related research.
- Interpret informed consent rules to allow for the clinical and environmental circumstances inherent in conducting credible EMS research.
- Develop involvement and/or support of EMS research by all those responsible for EMS structure, processes, and/or outcomes.
- Enhance the quality of published EMS research.
- Develop collaborative relationships between EMS systems, medical schools, other academic institutions, and private foundations.

Appendix C: EDUCATION PROGRAMS

The National EMS Agenda recommends the following tactics:

- Ensure excellence of EMS educational programs.
- Update core content objectives frequently enough so they reflect EMS health care needs.
- Incorporate research, quality improvement, and management learning objectives in higher level EMS education.
- Conduct EMS education with medical direction.
- Seek accreditation for EMS education programs.
- Establish innovative and collaborative relationships between EMS education programs and academic institutions.
- Recognize EMS education as an academic achievement.
- Adopt the principles of the National EMS Education and Practice Blueprint.
- Develop a system of reciprocity of EMS credentials.

Based on the broad concepts of education practice and theory represented in the EMS Agenda for the Future, the National EMS *Education Agenda for the Future* proposes the following outcome points:

- EMS education develops competence in the areas necessary for EMS providers to serve the health care needs of the population. Educational outcomes for EMS providers are congruent with the expectations of the health and public safety services that provide them. EMS education emphasizes the integration of EMS within the overall health care system. In addition to acute emergency care, all EMS educational programs teach illness and injury prevention, risk modification, the treatment of chronic conditions, as well as community and public health.
- EMS education is of high quality and represents the intersection of the EMS professional and the formal educational system. The content of the education is based on nationally developed National EMS Education Standards. There is significant flexibility to adapt to local needs and develop creative instructional programs. Programs are encouraged to excel beyond minimum educational quality standards. EMS education is based on sound educational principles and is broadly recognized as an achievement worthy of formal academic credit.
- Basic level EMS education is available in a variety of traditional and non-traditional settings. Advanced level EMS education is sponsored by institutions of higher education and most are available for college credit. Multiple entry options exist for advanced level education, including bridging from other occupations, basic EMS levels, and for individuals with no previous medical or EMS experience. All levels of EMS education are available through a variety of distance learning and creative, alternative delivery formats.
- Educational quality is assured through a system of accreditation. This system evaluates programs relative to standards and guidelines developed by the national communities of interest. Entry level competence is assured by a combination of curricula standards, national accreditation, and national standard testing.
- Licensure is based upon the completion of an approved/accredited program and successful completion of the national exam. This enables career mobility, advancement, and facilitates reciprocity and recognition for all levels.
- Interdisciplinary and bridging programs provide avenues for EMS providers to enhance their credentials or transition to other health career roles, and for other health care professionals to acquire EMS field provider credentials. They facilitate adaptation of the work force as community health care needs, and the role of EMS, evolves.
- EMS education supports and fosters critical thinking, research and service, and provides opportunities for cooperation and strategic linkages between all essential components for the delivery of quality EMS care.
- The system proposed in the *Educational Agenda* offers a number of benefits, including greater predictability for component development cycles, and a clear and definite method for introducing changes to the system. These provisions clarify the process for accommodating medical advances, technology development, and other needs that affect the scope or content of EMS education while following the attributes of the *EMS Agenda for the Future*.

Paramedic *Continuing Education* National Guidelines

(The U.S. DOT, in cooperation with the U.S. Department of Health and Human Services Public Health Services and the Health Resources & Human Services Administration, Maternal and Child Health Bureau, published the Continuing Education National Guidelines)

- Supported by NHTSA, these guidelines replace the 1985 EMT-P and EMT-I Refresher Courses. They are part of a series of courses making up a national EMS training program consistent with the recommendations of the *National EMS Education and Practice Blueprint*, the *EMT and Paramedic Practice Analysis*, and the *EMS Agenda for the Future*.
- Advocates that CE should move toward a quality assurance model that identifies individual and system areas for improvement and incorporates these topics into the CE program.
- A major emphasis of this document is to transition EMS education and continuing education from strictly an hours-based to a competency-based approach. They give rationale for the necessity of recertification/ relicensure including the rapid expansion and perpetually changing nature of medical knowledge and skills and professional accountability. Trends dictate that providers "prove" their ongoing competence.
- The model suggested in this document addresses two primary areas of concern: (1) competence (measure of minimum proficiency of EMS providers' knowledge and skills) and (2) ongoing education which is designed to assure that the EMS provider obtain "new" knowledge and skills as well as maintain prior knowledge and skills. Underlying their model is the assumption that credentialing agencies expand the number and types of mechanisms through which a provider can demonstrate competence.
- They recommend that the assessment process used in relicensure provide a complete picture of the EMS professional's competence in three areas:
 - Actual field performance (assessment of practice outcomes)
 - Assessment of potential to practice: Ability to respond appropriately to a wide range of patient situations including those that are important, new, or infrequently encountered. Local EMS agencies should offer structured education on topics identified through their QI program as an emerging need.
 - Assessment of professional qualities (attitudes and behaviors)
- Mechanisms for competency assurance are specified. *Competency-based education, directly toward the attainment of specific, behaviorally defined objectives requires separate tests of the attainment of each of the competencies.*
 - Needs assessment
 - Assurance of knowledge through a variety of CE and refresher programs
 - Assurance of skill proficiency through field performance evaluation, hospital clinical performance evaluations, skills workshops, and performance examinations
- The document states that EMS systems should ensure that CE helps providers keep up with the rapid changes in emergency care. Local medical directors must verify that personnel are competent in local/regional equipment, policies, and procedures. For every system change, verification of the training and implementation process must be documented.
- The *"Kirkpatrick Model"* is advocated as an evaluation process for the education program
 - Level I: Learner's reactions in post-class questionnaires. Provides immediate feedback to improve future programs.
 - Level II: Evaluate whether learning has occurred through written and practical exams.
 - Level III: Evaluate job performance and application of the education to real life situations.
 - Level IV: Evaluate if education had a positive impact on patient outcomes.
- The document breaks down the various modules into preparatory, airway management and ventilation, patient assessment, trauma, medical, special considerations, and operations and recommends a minimum number of CE hours per year ranging from a total of 24 to 36 hours.

NWC EMSS-Specific Education Program Objectives

The **EMT course** is conducted in compliance with all relevant guidelines and operates within its budgetary plan. The EMT Course Lead Instructor serves as resource for BLS practice throughout the system.

Evidence of achievement:

1. EMT graduates pass the State and/or National Registry examination on the first attempt meeting or exceeding established benchmarks.
2. The EMT Course meets budget or demonstrates a favorable variance.

The **Paramedic Course** is conducted in compliance with all relevant guidelines and operates within its budgetary plan. The Paramedic Course Program Director and Lead Instructor serve as a resources for ALS education in the system.

Evidence of achievement:

1. Paramedic students consistently score in the top 2nd standard deviation on credentialing examinations.
2. The course optimizes readiness to learn by sequencing theory from the known to the unknown; alternates complex with less difficult concepts, and focuses on experiential learning. Integration and application of theory to practice is highlighted through early entry to the clinical units and through an emphasis on psychomotor skill development in lab sessions. All students meet affective objectives.
3. The Paramedic Course meets budget or demonstrates a favorable variance.
4. Preceptors and educators are effectively prepared for their roles through education and mentoring.

The **Continuing Education program** meets the needs of all stakeholders and operates within its budgetary plan.

Evidence of achievement:

1. The CE budgetary plan is approved annually by the Chiefs/EMS CEOs. The program operates within the budgetary plan.
2. Class scheduling mutually accommodates the needs providers and educators.
4. Curricular content can be mapped to PBPI findings, National Registry and IDPH CE requirements, a system generated needs assessment, and/or EMS MD request.
5. CE educators conduct the classes as designed by Resource Hospital educators and apply principles of adult learning theory when teaching as measured by participant evaluations.

The **TNS Program** continues to meet or exceed all IDPH requirements.

The **ECRN Course** continues to meet or exceed all IDPH requirements and emphasizes experiential learning to better prepare nurses to provide on-line medical control.

Appendix D: PUBLIC EDUCATION

The National EMS Agenda recommends the following tactics:

- Acknowledge public education as a critical activity for EMS.
- Collaborate with other community resources and agencies to determine public education needs.
- Engage in continuous public education programs.
- Educate the public as consumers.
- Explore new techniques and technologies for implementing public education.
- Evaluate public education initiatives.

ILLNESS and INJURY PREVENTION

The National EMS Agenda recommends the following tactics:

- Collaborate with community agencies and health care providers with expertise and interest in illness and injury prevention.
- Support the Safe Communities concept.
- Advocate for legislation that potentially results in injury and illness prevention.
- Develop and maintain a prevention-oriented atmosphere within EMS systems.
- Include the principles of prevention and its role in improving community health as part of the EMS education core content.
- Improve the ability of EMS to document injury and illness circumstances.

Appendix E: EMS ACCESS

The National EMS Agenda recommends the following tactics:

- Implement wireless 9-1-1 access. Ensure that all calls to a PSAP, regardless of their origins, are automatically accompanied by unique location-identifying information.
- Develop uniform cellular 9-1-1 services that reliably route calls to the appropriate PSAP.
- Evaluate and employ technologies that attenuate potential barriers to EMS access.
- Enhance the ability of EMS systems to triage calls and provide resource allocation that is tailored to patient's needs.

COMMUNICATION SYSTEMS

The National EMS Agenda recommends the following tactics to achieve this strategic initiative:

- Assess the effectiveness of various personnel and resource attributes for EMS dispatching.
- Receive all calls for EMS using personnel with the requisite combination of education, experience, and resources to optimally query the caller, make determination of the most appropriate resources to be mobilized, and implement an effective course of action.
- Promulgate and update standards for EMS dispatching.
- Develop cooperative ventures between communications centers and health providers to integrate communications processes and enable rapid patient-related information exchange.
- Determine the benefits of real-time patient data transfer.
- Allocate federal, state, and regional funds to further develop and update geographically integrated and functionally based EMS communications networks.
- Facilitate exploration of potential users of advanced communications technology by EMS.
- Collaborate with private interests to effect shared purchasing of communications technology.

Appendix F: CLINICAL CARE

The National EMS Agenda recommends the following tactics to achieve this strategic initiative:

- Commit to a common definition of what constitutes baseline community EMS care.
- Subject EMS clinical care to ongoing evaluation to determine its impact on patient outcomes.
- Employ new care techniques and technology only after shown to be effective.
- Mutually acceptable clinical guidelines regarding patient treatment and transport must be developed.
- Conduct task analyses to determine appropriate staff configurations during secondary patient transfers.
- Eliminate patient transport as a criterion for compensating EMS systems.

Appendix G: INFORMATION SYSTEMS

The National EMS Agenda recommends the following tactics:

- Adopt uniform data elements and definitions and incorporate them into information systems.
- Develop mechanisms to generate and transmit data that are valid, reliable, and accurate.
- Develop information systems that are able to describe an entire EMS event.
- Implement laws that provide protection from liability for EMS field and medical direction personnel when dealing with unusual situations.

HIPAA calls for

1. standardization of electronic patient health, administrative, and financial data,
2. unique health identifiers for individuals, employers, health plans, and health care providers, and
3. security standards protecting the confidentiality and integrity of "individually identifiable health information", past, present, or future.

Appendix H: SYSTEM FINANCE

The National EMS Agenda recommends the following tactics:

- Collaborate with other health care providers and insurers to enhance patient care efficiency.
- Develop proactive financial relationships between EMS, other health care providers, and health care insurers/provider organizations.
- Compensate EMS on the basis of a preparedness-based model, reducing volume-related incentives and realizing the cost of an emergency safety net.
- Commit local, state, and federal attention and funds to continued EMS infrastructure.

Appendix I: HUMAN RESOURCES

The National EMS Agenda recommends the following tactics:

- Ensure that alterations in expectations of EMS personnel to provide health care services are preceded by adequate preparation. (System entry etc...)
- Support critical incident stress management programs.

Appendix J: MEDICAL DIRECTION

The National EMS Agenda recommends the following tactics:

- Formalize relationships with all EMS systems and medical directors.
- Require appropriate credentials for all those who provide on-line medical direction.
- Encourage Associate hospital physician participation in system activities.

Appendix K: CONTINUOUS QUALITY MEASUREMENT AND IMPROVEMENT

The National EMS Agenda recommends the following tactics:

- Develop valid models for EMS evaluation.
- Evaluate EMS outcomes for multiple medical conditions.
- Determine EMS cost-effectiveness.
- Incorporate consumer input into the evaluation process.

Issues impacting the NWC EMSS:

- While improved, participation in QI activities has not reflected full System participation, which makes it difficult to generalize the findings to all providers.
- There has been a reluctance to embrace individual EMS agency QI activities based on limitations in hours and misunderstandings related to its purpose.
- Performance in several areas continues to fall below benchmarks

Appendix L: Centers for Medicare and Medicaid Services Ambulance Fee Schedule

The Medicare program pays for transportation services for Medicare beneficiaries when other means of transportation are contraindicated. Ambulance services are divided into categories based on the medically necessary treatment provided during transport.

For ground:

- Basic Life Support (BLS)
- BLS-Emergency
- Advanced Life Support, Level 1 (ALS1)
- ALS1-Emergency
- Advanced Life Support, Level 2 (ALS2)
- Specialty Care Transport (SCT)
- Paramedic ALS Intercept (PI)

For air:

- Fixed wing Air Ambulance (FW)
- Rotary wing Air Ambulance (RW)

The final rule establishes a fee schedule payment system for all EMS services.

- Providers may not bill for individual supplies, equipment or drugs if they wish to have the hospitals exchange supplies/equipment at no cost to the provider agency.