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EMS as a Public Good

An Update on Discussions from the NEMSAC Systems Committee

When illness or injury strikes, people depend on Emergency Medical Services to quickly respond to, care for, and transport patients in their time of need. Each year more than 16 million Americans access the healthcare system through EMS (1). Pre-hospital EMS care is rendered daily to thousands of heart attacks, vehicle accidents, and other "routine" emergencies. Many EMS providers have special skills such as incident management, hazardous materials response, vehicle extrication, crisis management, and mass casualty capabilities. EMS also plays a vital role in our nation's preparedness for and response to natural disasters, public health emergencies, and homeland security events (2, 3, 4).

The National Health Security Strategy states that, "An EMS system is essential to the nation's preparedness for and initial emergency medical response to catastrophic incidents" (p. 11).

Providing a safe, healthy environment for people to live is one of the highest priorities of government (5). Like its law enforcement and fire service counterparts, “EMS plays an indispensable role in every community’s emergency response system and forms a critical component of the nation’s disaster response infrastructure” (6). But unlike other public services, EMS does not share a consistent recognition among states and local governments as a public good. As an illustration, the National League of Cities has detailed policy to guide federal lobbying efforts. The NLC policy chapter includes statements related to crime prevention, homeland security, disaster preparedness and response, substance abuse, and municipal fire policy, but there is no policy or resolution related to EMS (5).

Few cities are known to have included in their charter a provision identifying EMS as an essential service in the interest of the public good. Toronto, Ontario, Canada is currently exploring designating EMS as an “essential service,” but has deferred the issue for further consideration and debate, even though the Toronto Transit Commission were declared an essential service in one day (7).

The lack of identification of EMS as a public good - similar to the status given to other government agencies (police, fire, solid waste) - has consequences for efficiency (getting the most out of available resources), effectiveness (providing services based on scientific knowledge to those who would benefit), and social equity (providing care that does not vary in quality because of personal characteristics such as gender, race/ethnicity, geographic location, or social-economic status). Building system capacity requires funding. Typically, EMS receives a very small percentage of funds dedicated to larger programs (1). Although U.S. EMS providers roughly equal the number of firefighters and police officers, they receive only four percent of the $2.38 billion allocated by DHS in 2002 and 2003 (1, 2, 8). Similarly, EMS received only five percent of the Bioterrorism Hospital Preparedness Grant administered by DHHS (1). And, unlike law enforcement and the fire service, EMS agencies do not have a federal grant program dedicated to its operational needs (2).

A robust EMS system has positive effects that extend beyond the individual patient to the

community at large and the nation as a whole. Over the past thirty years, EMS has evolved to respond to expanding needs and community expectations to become and integral part of the overall healthcare system (9). These changes have effectively expanded the scope of EMS providers to fill the need for primary healthcare in their communities. Indeed, the vision of the *EMS Agenda for the Future* (10) proposes:

> *Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will 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. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net.*

Yet, EMS was largely left out of the healthcare reform debate in the United States despite the potential of EMS to positively impact healthcare costs and provide quality, systematic primary care in the out-of-hospital setting (11).

Economics as a discipline can provide great insight into the moral and practical challenges of providing for our nation's health care, and the provision of emergency medical services must become part of that debate. Economic concepts provide an important insight into why emergency medical services constitute a public good and, therefore, are an essential public safety service. Past economic research in public safety and health services has discussed these services in the context of public goods (12, 13, 14, 15), with specific discussions of competing values of equity and efficiency (14-21), common pool resources and free riders (14), subjectivity to congestion (22-24), and externalities (14, 18, 25). But research specific to EMS is lacking.

Making a case for EMS as a public good requires understanding of these concepts. Commissioning a white paper on *EMS as a Pubic Good* will put EMS in a better position to compete for scare resources and demonstrate its ability to become a cost-effective provider of community-based health.

References

(1) Emergency Medical Services at the Crossroads
(2) Homeland Security Policy Institute (2005). Back to the Future: An agenda for federal leadership in Emergency Medical Services...
(3) National Health Security Strategy
(4) McIntosh, BA et al., (1997). The role of EMS in public health emergencies. Prehospital Disaster Medicine, 12(1): 30-5
(5) National League of Cities, Public Safety and Crime Prevention Policy Chapter..
(6) ACEP (n.d.) EMS as an Essential Public Safety Service. http://www.acep.org/Content.aspx?id=29430

(7) Here and Now Toronto (2012, January 24). Making EMS an Essential Service. http://www.cbc.ca/hereandnowtoronto/episodes/2012/01/24/making-ems-an-essential-service/
(8) US Department of Homeland Security (2004). Support for EMS Provided by the DHS Office of State and Local Coordination and Preparedness.
(9) Mann, NC & Hedges, JR. (2002) The role of prehospital care providers in the advancement of public health. Prehospital Emergency Care, 6(2): S63-S67
(10) NHTSA. (1996). EMS Agenda for the Future.
(11) NEMSAC (2009, December). EMS Makes a Difference: Improved clinical outcomes and downstream healthcare savings. A position statement of the National EMS Advisory Council.
(12) Chenn CC, Evans TG, & Cash RA (1999) Health as a global public good (p. 284-305). In Kaul I, Grunberg I, Stern MA & Gajraj P (Eds.) Global Public Goods. New York, NY: United National Development Programme.
(13) Folland S, Goodman AC & Stano M (2009). The economics of health and health care. New York, NY: Prentice Hall.
(14) Reddy SD, (2000, Feb). Profile: Examining hazard mitigation within the context of public goods. Environmental Magazine, 25(2): 129-141
(15) Boyce JK (2000, Sept). Let them eat risk? Wealth, rights, and disaster vulnerability. Disaster, 24(3): 254-261
(16) Bayourni AM (2009, July). Equity and health services. Journal of Public Health Policy, 302(2): 176-182
(17) David G & Harrington SE (2010, July). Population density and racial differences in the performance of emergency medical services. Journal of Health Economics, 29(4): 603-615
(18) Ivers LC, et al., (2008). Increasing access to surgical services for the poor in rural Haiti: Surgery as a public good for public health. World Journal of Surgery, 32(4): 537-542
(19) Narad RA & Gillespie W. (1998). The public vs. private debate: Separating facts from values. Prehospital Emergency Care, 2(3): 196-202
(20) Sweet M (2007, Nov). Health Care: For private profit or public good? Australian Nursing Journal, 15(5): 23-25
(21) Woolf SH & Strange KC (2006, July). A sense of priorities for healthcare commons. American Journal of Preventative Medicine, 31(1): 99-102
(22) Bruechner JK (1981). Congested public goods: The case of fire protection. Journal of Public Economics, 15(1): 45-58
(23) McMillan ML (1987). On measuring congestion of local public goods. Journal of Urban Economics, 26(2): 131-137
(24) Oates WE (1998). On the measurement of congestion in the provision of local public goods. Journal of Urban Economics, 24: 85-94
(25) Greenko J, Mostashari F, Fine A & Layton M. (2003). Clinical evaluation of the emergency medical services (EMS) ambulance dispatch-based syndromic surveillance system, New York City. Journal of Urban Health, 80(2 Suppl 1): 50-56