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Executive Briefing

Special Report November 2011

Electronic Medical Records

Special Report & Survey Results

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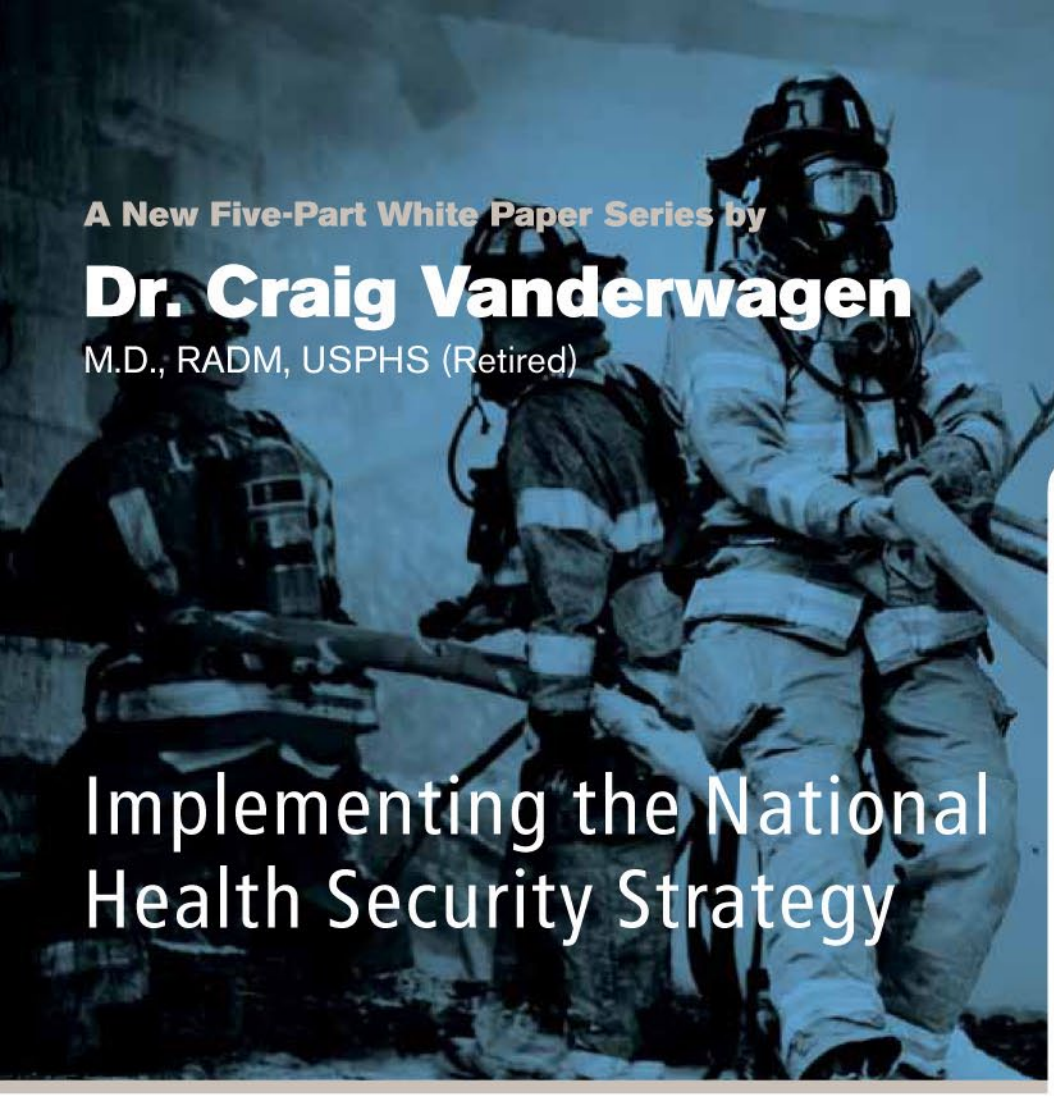

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From August 2006 until July 2009, **Dr. Vanderwagen** was the founding Assistant Secretary for Preparedness and Response (ASPR), U.S. Department of Health and Human Services.

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Publisher's Message

By Martin (Marty) Masiuk, Publisher

Greetings and Welcome!

On behalf of the entire staff, we are proud to host this DomPrep Online Executive Briefing. By design, these briefings are structured to be power-packed, information-rich presentation of ideas and possible soltions. Your attention and feedback are greatly appreciated as our distinguished speakers shed light on the gaps discovered by the DomPrep40 surveys and spark discussions for possible solutions.

The important topic of this briefing is ***Electronic Medical Records (EMRs)***, headed by DomPrep40 Advisor Dennis Jones, along with a panel of other experts, will discuss gaps and synergies evident from the survey. Topics to be addressed include:

- Patient tracking as an integrated rather than isolated event
- A movement toward creating a new health IT infrastructure
- Implementation - chanllenges facing the healthcare industry
- Vehicles and platforms to facilitate a portable health data solution

Please take a moment to review the agenda, as well as information about presenters and sponsors.

The recorded proceedings of this Briefing are available in the Webinar section of DomPrep's website: http://www.domesticpreparedness.com/Webinars/.

Your feedback and input on these briefings are always welcome as DomPrep strives to take preparedness to the next level.

Sincerely yours,

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Former Hospital Preparedness Director, Georgia Division of Public Health

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Listen to Presentation

Chad Priest

Chief Executive Officer, MESH Inc.

Prior to assuming his position as MESH CEO, Chad Priest was an attorney at the Baker & Daniels law firm – practicing public health and healthcare law in the firm's offices in Indianapolis and Washington, D.C., representing a broad spectrum of healthcare entities, and using his background in healthcare and emergency preparedness to provide specialized counseling to clients on public health-related matters. He also worked with healthcare and other social service clients on advocacy, public policy, and legislative matters at both the state and local levels. At an earlier stage of his career, he served on active duty in the U.S. Air Force as a family practice primary care optimization nurse specializing in issues related to emergency preparedness.

Listen to Presentation

James J. James MD, DrPH, MHA

Director, American Medical Association (AMA)
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James J. James MD, DrPH, MHA, is Director of the AMA Center for Public Health Preparedness and Disaster Response, and Editor-in-Chief of *Disaster Medicine and Public Health Preparedness*. He is Chair of the National Disaster Life Support Foundation Board of Directors and Co-Chair of the National Disaster Life Support Education Consortium Executive Committee. He has over 30 years of experience in the public and private healthcare sectors – clinician, researcher, professional personnel manager, and program director. He served with the U.S. Army Medical Department for 26 years, was Director of the Miami-Dade County Health Department (1999-2002), and was appointed to the National Biodefense Science Board (2007) and the Defense Health Board (2008).

Listen to Presentation

Carl Brewer

President, Upp Technology Inc.

Upp Technology provides innovative technology solutions to leading state, federal, and local health agencies, providing detailed tracking solutions. These solutions provide easy-to-use, streamlined operations for victim handling and tracking of critical patient data.

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Former Assistant Secretary for Preparedness & Response, HHS

DomPrep Survey

Electronic Medical Records (EMRs)

Prepared by Dennis Jones, DomPrep40 Advisor

According to the Centers for Disease Control and Prevention (CDC), during an average year, Americans make over 1.2 billion visits to either physician offices or hospital outpatient and emergency departments. That number translates to an average of more than four visits per year by each man, woman, and child residing in the United States. More than 15,000 ambulance services across the country annually transport more than 16 million patients to emergency departments, almost 44,000 every day, while thousands of other patients are transported to other healthcare facilities. The patients transported in those ambulances, their destinations, their current locations, their diagnoses, and their treatments en route are all data that can be tracked electronically.

As electronic data, patient information can be managed and shared, in real time, across the healthcare spectrum in order to optimize care and help save lives. This is true for routine daily transports, but is even more critical during a disaster response when emergency managers struggle to efficiently process large numbers of patients at multiple healthcare facilities. Managers try to ensure that patients are transported to the facility best-suited for each patient's needs, but efforts during disaster scenarios too often result in separated families struggling to find each other. Ironically, tracking systems used by shipping agencies such as FedEx often make it easier to identify the sender, contents, and even current location of a package shipped across the country (or around the world) than to identify and locate a patient being transported across a city.

The American healthcare system generates millions of medical records every day; each ambulance transport generates a Patient Care Report, each hospital visit generates a medical record, and each follow-up visit to a physician generates another medical record. Far more than a billion new medical records are created in the United States each year. Many but not all of these records – each a vital piece of data that is needed by all members of the healthcare community to ensure patients receive proper care – are already being stored electronically.

Unfortunately, the current electronic records are often stored in multiple databases that do not "speak" with one another. In an era of reduced resources, some healthcare experts make a compelling argument by projecting that a nationwide electronic medical record (EMR) system could have significant cost benefits. For example, Greenway Medical Technologies claims that "widespread implementation of interoperable and integrated [EMR] solutions can save the American healthcare system upwards of $200-$300 billion per year through increased efficiencies, increased care quality, reduction of superfluous procedures, and enhanced antifraud safeguards." Other estimates suggest that the use of EMRs could also save many lives, by eliminating medical care errors. On 30 May 2008, U.S. Rep. Adam Smith (WA-09) stated that "health IT [Information Technology] could save thousands of lives each year by directly improving the quality of our nation's health care delivery system."

Significant investments are being made to modernize health IT systems. In 2005, the American National Standards Institute created the Healthcare Information Technology Standards Panel. More recently, funding has stemmed from the 2009 American Recovery and Reinvestment Act – including significant funds for enacting the Health Information Technology for Economic and Clinical Health (HITECH). The U.S. Department of Health & Human Services has been working on the Nationwide Health Information Network (NwHIN) – "an infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare." Also underway are initiatives for healthcare entities to directly send health data point-to-point using a secure email backbone.

The current health IT system is highly dependent on local health systems and local and state public health officials. In addition to the challenges of implementing vast new technology systems and networks that are capable of guaranteeing the privacy and security of each and every record, local officials are struggling to identify funding sources, while simultaneously trying to convince the public that these systems will improve their healthcare experience.

New and emerging technologies in health IT include standardized medical record formatting that enables interfaces across healthcare systems, health information exchanges (HIEs) that facilitate the electronic transfer of those records, and global information system (GIS) technologies that locate and facilitate the management of patient transport.

Key Findings

- Roughly three-fourths of both sets of respondents believe that the use of tracking technologies during any significant event would well serve their communities.

- Less than one third of respondents report that their communities have deployed electronic systems for sharing health records – and, of those, half are sharing that information only within their individual agency, hospital, or healthcare system.

- Only one third of respondents believe there is proper security in place to protect the privacy and information of individuals included in a universal HIE.

- On average, more than 80% of respondents believe there is either "some value" or "a lot of value" in the use of these technologies in each surveyed use case, including routine use: (a) by Emergency Medical Services (EMS) in their electronic patient care reports (ePCRs) and hospitals in their EMRs; (b) by government agencies to improve community preparedness planning; and (c) by the nation's overall healthcare and response communities during disasters.

Survey Results

The current survey was designed to address the use of each of these emerging technologies and seek insight into the current level of local or regional use of such technologies by both the healthcare and response sectors, and to assess the opportunities for, and challenges

to, their nationwide implementation. While questions may have assessed opinions regarding specific technologies, the overall intent was to assess the attitudes regarding the implementation of a modernized health IT infrastructure.

The wide range of technologies included in this survey, along with the diversity of the readership, suggest that there might be significant differences regarding how respondents rate the value of specific technologies in specific scenarios. However, Question 1 reveals close agreement between the readership and DomPrep40 Advisors (71% and 75%, respectively) that patient tracking systems would be very useful in most "mass patient" situations. The remaining respondents, among both the readership and the DomPrep40, are essentially split over whether these systems would be most useful in mass casualty incidents or in public health/pandemic responses.

Question 2 reveals a similar pattern with the majority of both groups of respondents (83% and 80%, respectively) being in agreement that these systems would be most useful during the planning or response phases and only a small number (17% and 20%, respectively) saying that the technology would be most valuable after an event. However, there is an interestingly significant disparity between the readership and DomPrep40 regarding the usefulness between the planning phase (Question 3: 39% and 20%, respectively) and the response phase (Question 4: 43% and 60%, respectively). The first two questions reveal that most respondents recognize the value these new technologies offer their communities, while identifying differences about where in the response environment the same technologies offer the most value.

Question 5 reveals that there are at least three significant challenges that seem to hinder the implementation of the HIE technology. Both groups of respondents split their answers primarily across Technical, Organizational, and Policy (Readership: 15%, 34%, and 23%, respectively; DomPrep40: 15%, 30%, and 40%, respectively).

Unfortunately, Questions 7 and 8 also identify significant challenges. Question 7 reveals that there is no consensus on the appropriate source of funding for the implementation of these technologies. Less than one fourth of both groups of respondents believe that the U.S. Department of Health & Human Services' Office of the Assistant Secretary for Preparedness and Response (ASPR; 24% and 20%, respectively) is the proper source, and less than one fourth believe that the Centers for Disease Control and Prevention (CDC; 16% and 20%, respectively) is the proper source.

Question 8 casts a shadow over implementation with 45% of the readership and 40% of the DomPrep40 believing that these technologies are not secure enough, and approximately one third of each group believing that the technologies are secure enough. If only one third of the population believes that these systems are secure, it is reasonable to assume that the systems will not be implemented. Moreover, even if the public can be convinced that these systems are secure, it seems unlikely that there will be significant progress on implementation of any of the technologies unless and until critical funding decisions are made.

Conclusion

Based on the results of the DomPrep Electronic Medical Records survey, the majority of experienced practitioners across multiple health professions and communities believe that the set of new technologies included in the survey offer significant value to improve the delivery of healthcare in this country, both on a day-to-day basis and during disaster responses. In respondents' views, two primary concerns remain: (1) more needs to be done to ensure the privacy of patient data within new technologies; and (2) a decision needs to be made concerning the source of funding to support such technologies.

Post-Action Report

Overall, survey respondents agree that the healthcare IT infrastructure must be modernized both to save lives and save dollars. Each of the technologies offers significant value to local communities and to the nation as a whole. New technologies will significantly improve the capabilities of communities to respond effectively when disasters strike. While there are numerous examples across the country of high-tech systems providing real-time tracking of ambulances, health-system-wide sharing of complete health records, and even regional HIEs, much of the country is still without the benefit of the modern health IT infrastructure.

The potential ability to save tens of thousands of lives each year through the improved and expanded use of EMRs and effective data sharing is reason enough to justify the investments to implement these technologies. The effective implementation also offers significant long-term savings in overall healthcare costs, thus making the implementation even more compelling.

Dennis L. Jones, RN, BSN, Former Hospital Preparedness Director of the Georgia Division of Public Health is currently Director of Public Health Solutions – Intermedix EMSystems, and a DomPrep40 Advisor. He was the first health community preparedness director for the Georgia Division of Public Health and in that post directed the statewide health community program in its preparations to prepare for and respond to all health-emergency events, including the planning for pandemic influenza. He was also a finalist in Atlanta's 2003 Healthcare Hero award, the first chairperson of the Atlanta Metropolitan Medical Response System Healthcare Section, and a nationally recognized expert in hospital disaster preparedness.

DomPrep's Upcoming Survey

Information Sharing Across Emergency Management Disciplines

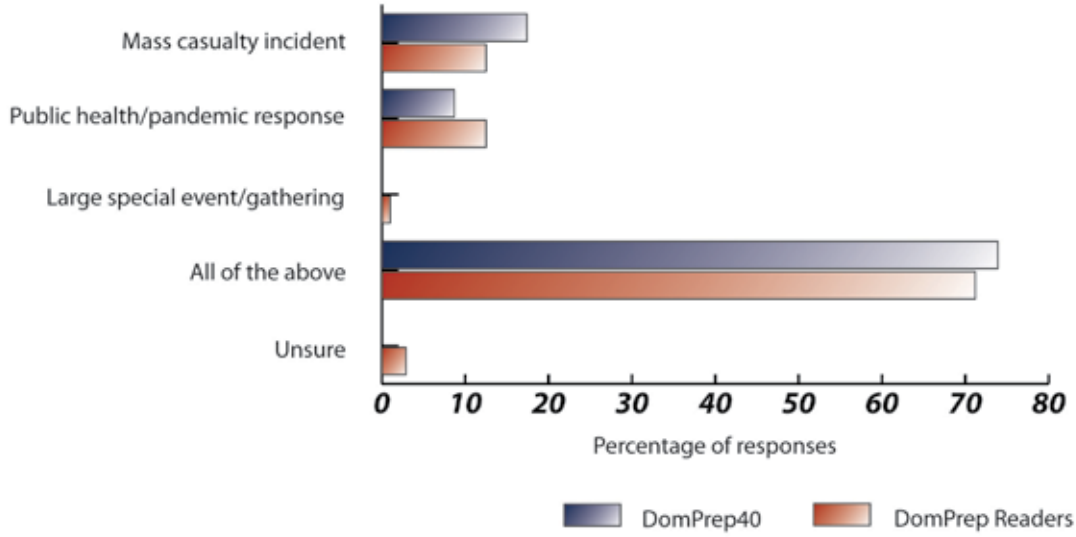
Is the U.S. more prepared to share information across multiple disciples before, during, and after a disaster? What security measures have or need to be taken to protect information as new avenues become more available? Do public safety agencies need to expand dedicated band-width to accommodate future growth in all forms of media information sharing?

DomPrep's next survey, which will be available shortly, will cover these questions and more! We look forward to your opion on the current state of information sharing effectiviness and progress that has been made since the 9/11 terrorist attacks.

Survey Results

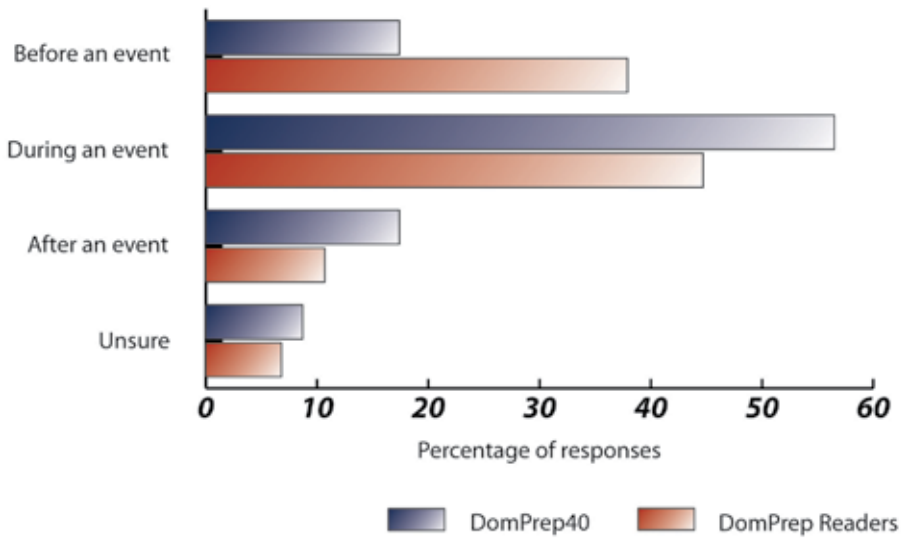
QUESTION ONE

In your community, which of the following scenarios would be best served by tracking populations affected by all-hazards events?



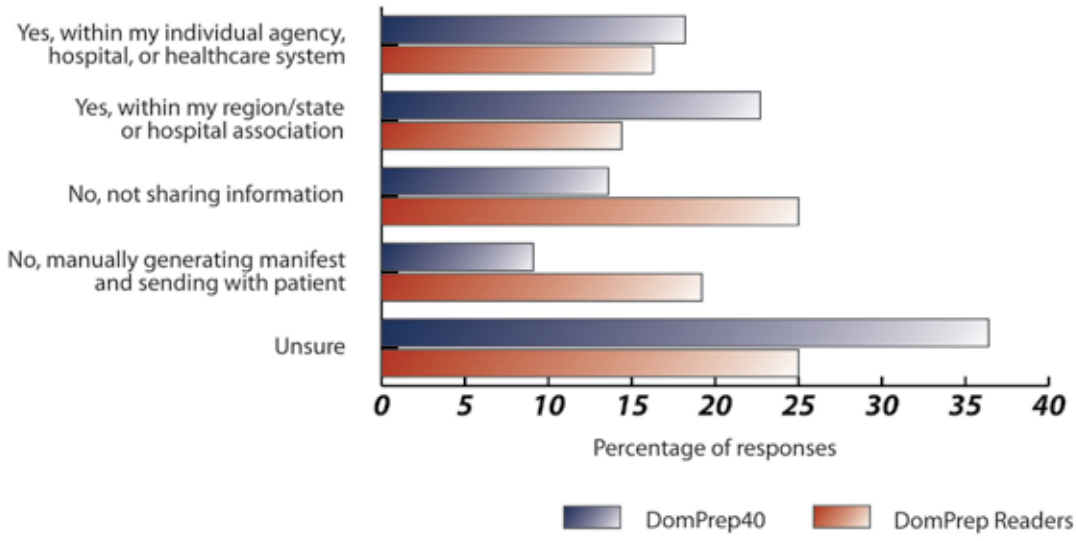
QUESTION TWO

Where do you see the best use of GIS technologies for a disaster event?



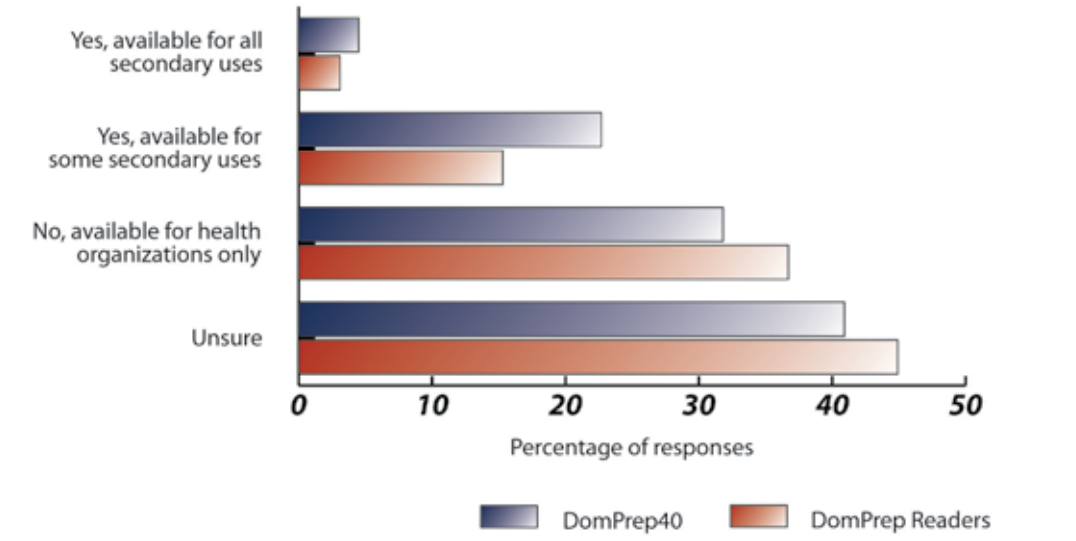
QUESTION THREE

Has your local community deployed an electronic system for sharing medical records (not including systems designed for billing only)?



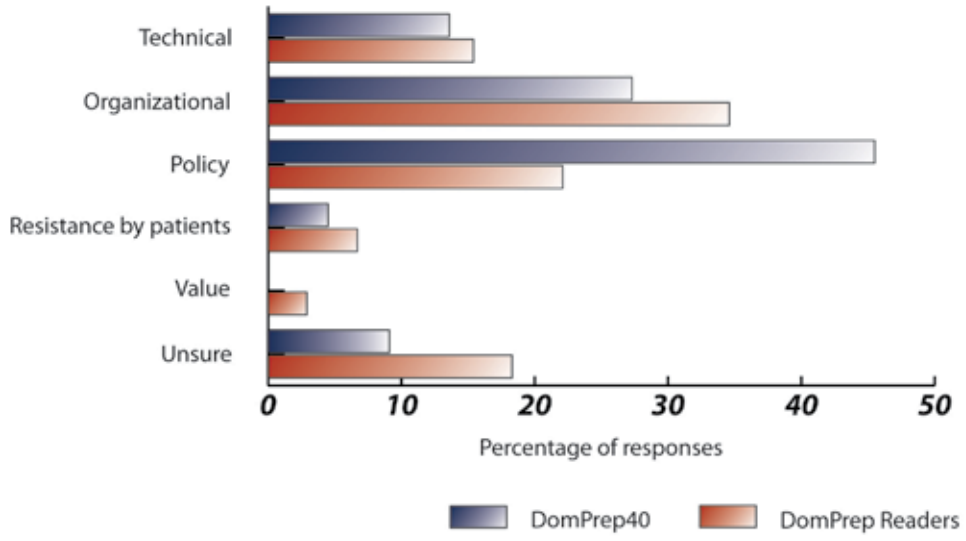
QUESTION FOUR

If your jurisdiction has deployed a Health Information Exchange (HIE) system, is it available outside the organization for secondary purposes (e.g., public health, epidemiology, emergency preparedness)?



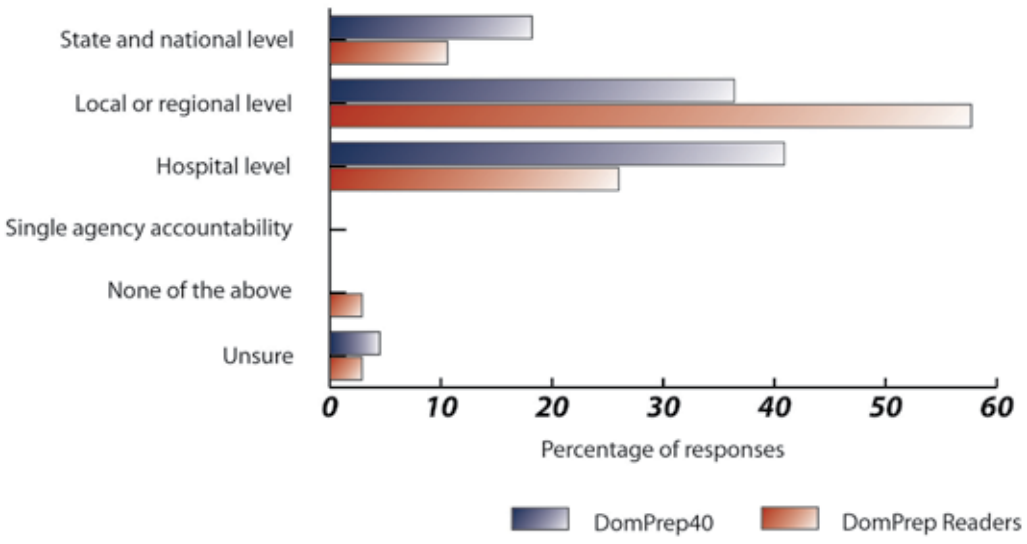
QUESTION FIVE

What are the most significant challenges for implementing HIE capability?



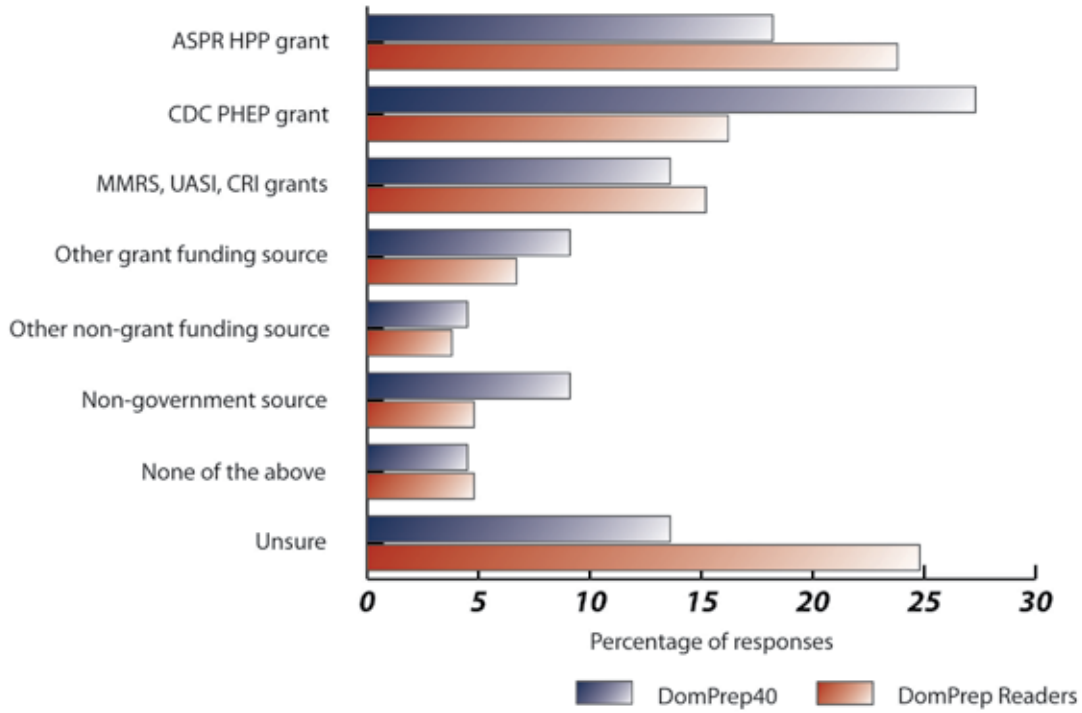
QUESTION SIX

Where do you see the most value in sharing EMRs?



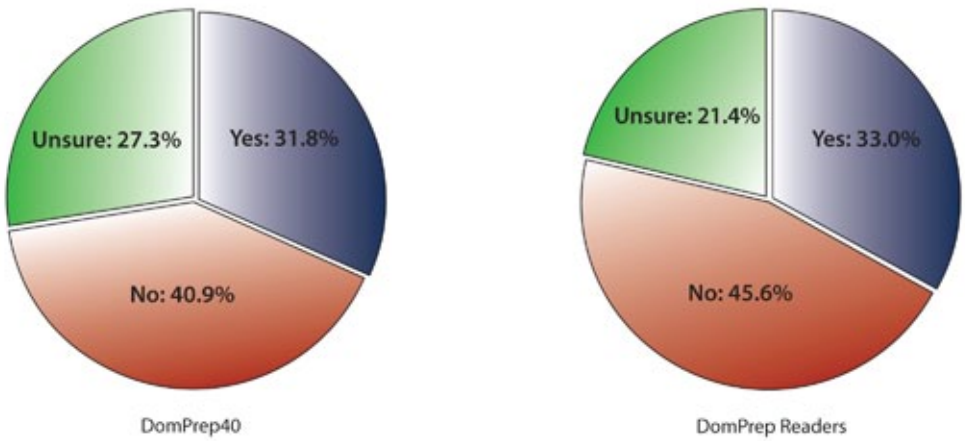
QUESTION SEVEN

What is the most appropriate funding stream for sustaining information sharing solutions?



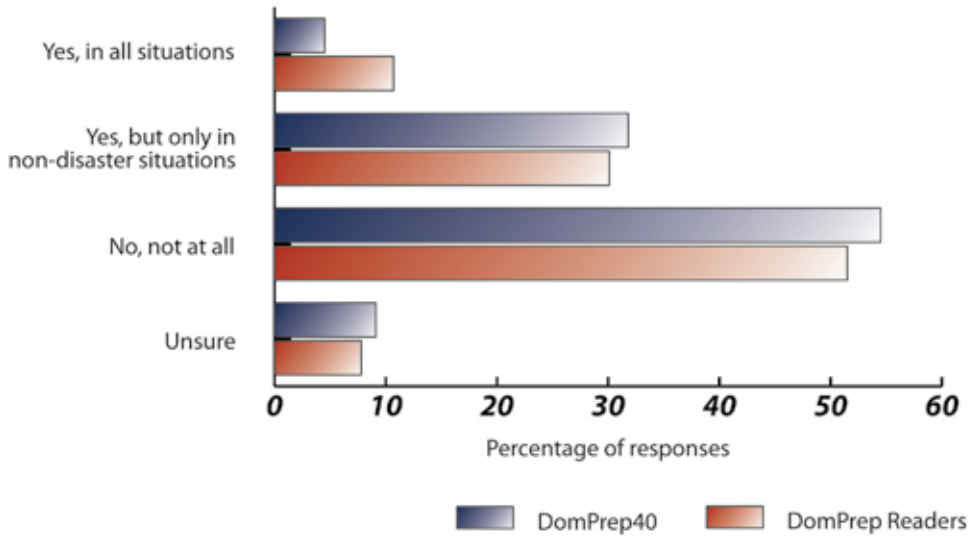
QUESTION EIGHT

Do you feel that there is proper security in place to protect the privacy and information of individuals included in a universal HIE?



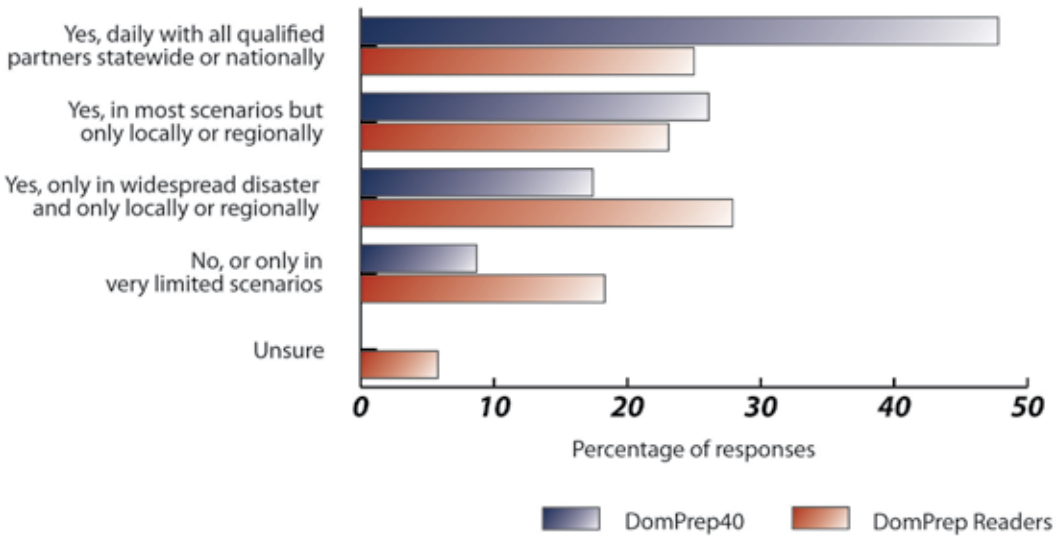
QUESTION NINE

Do you feel that electronic sharing of medical records violates personal rights protected under the Health Insurance Portability & Accountability Act (HIPPA) of 1996?



QUESTION TEN

Should patient data be shared electronically with other partners assuming minimal technical, procedural, or security/compliance concerns exist?



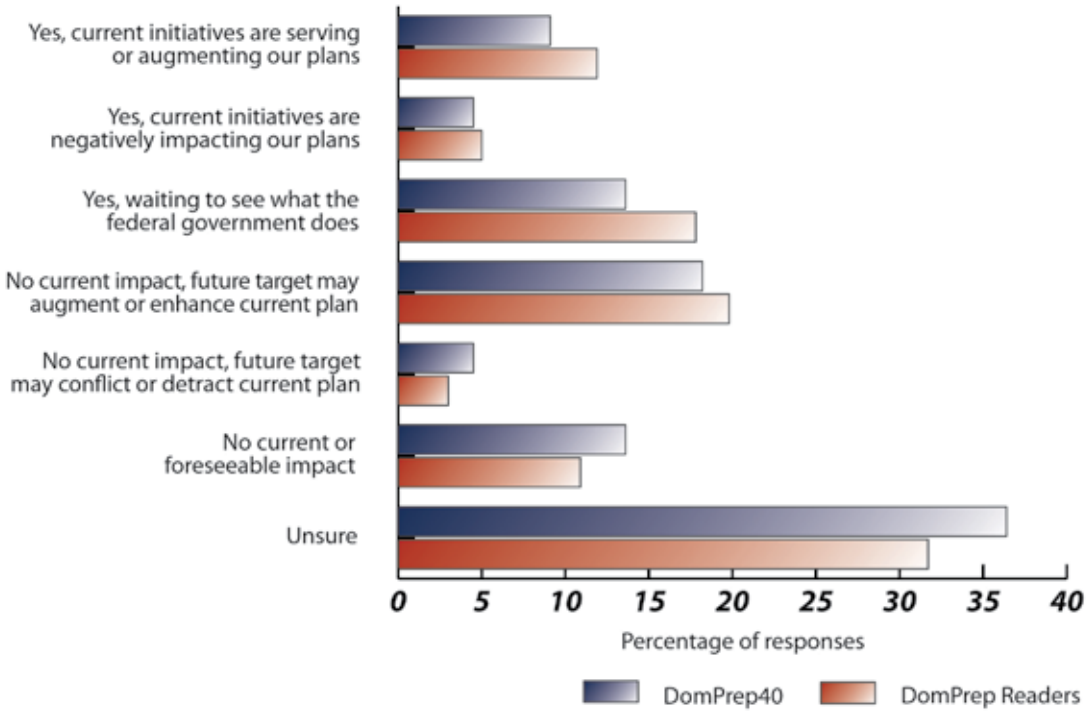
QUESTION ELEVEN

When tracking patients electronically, which integration options would provide the most value?

	No Value		Little Value		Some Value		A Lot of Value		Unsure	
	DP40	Readers	DP40	Readers	DP40	Readers	DP40	Readers	DP40	Readers
Pre-hospital Electronic Patient Care Reports (ePCR)	0.0%	3.0%	9.1%	10.1%	22.7%	27.3%	**59.1%**	**49.5%**	9.1%	10.1%
Hospital electronic health record or registration systems	0.0%	3.0%	0.0%	2.0%	36.4%	24.2%	**59.1%**	**64.6%**	4.5%	6.1%
Personal/portable electronic patient record/history systems	0.0%	2.0%	5.0%	6.1%	10.0%	24.5%	**80.0%**	**62.2%**	5.0%	5.1%
At-risk, functional/special needs and trauma registries	0.0%	3.0%	0.0%	5.0%	9.0%	22.0%	**81.8%**	**61.0%**	9.1%	5.1%
Health Information Exchanges (HEI)	0.0%	4.0%	0.0%	3.0%	40.9%	24.2%	**50.0%**	**56.6%**	9.1%	12.1%
Incident Command System/Emergency Operation Center (ICS/EOC) situational awareness tools	0.0%	6.1%	13.6%	11.1%	36.4%	35.4%	**40.9%**	**43.4%**	9.1%	4.0%
Hospital status reporting and diversion tracking tools (Hospital Available Beds for Emergencies & Disaster, or HAvBed)	0.0%	2.0%	4.5%	2.0%	27.3%	15.2%	**63.6%**	**72.7%**	4.5%	8.1%
Laboratory testing and pharmacy prescriptions	0.0%	2.0%	13.6%	11.1%	18.2%	33.3%	**63.6%**	**47.5%**	4.5%	6.1%
Family reunification centers, Red Cross chapters	0.0%	2.0%	0.0%	6.1%	18.2%	31.3%	**77.3%**	**55.6%**	4.5%	5.1%
Billing solutions	9.5%	11.2%	9.5%	23.5%	28.6%	**37.8%**	**33.3%**	17.3%	19.0%	10.2%

QUESTION TWELVE

Do federal emergency preparedness standards and response initiatives have any current or foreseeable impact on your organization's EMR plans?



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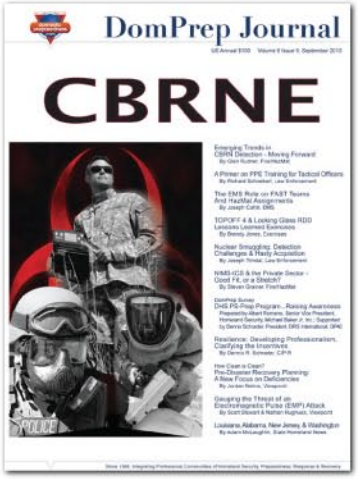
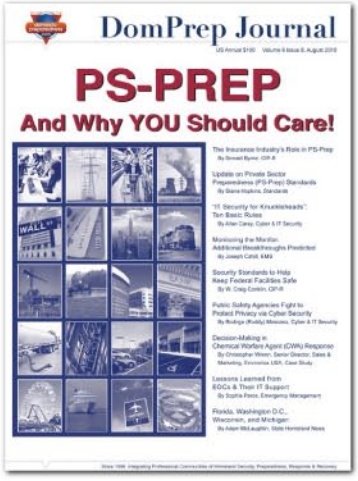
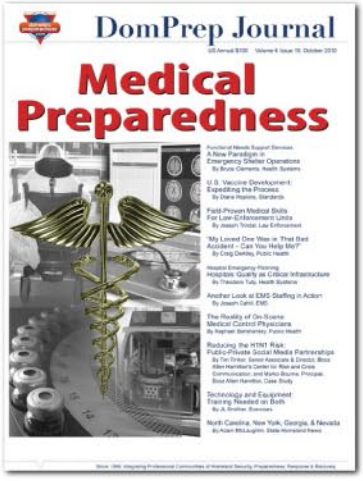
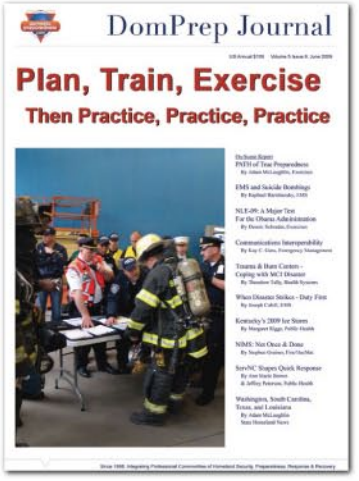
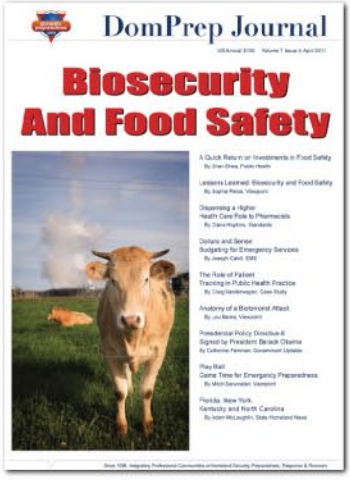
Critical Information for the Preparedness, Response & Recovery Communities

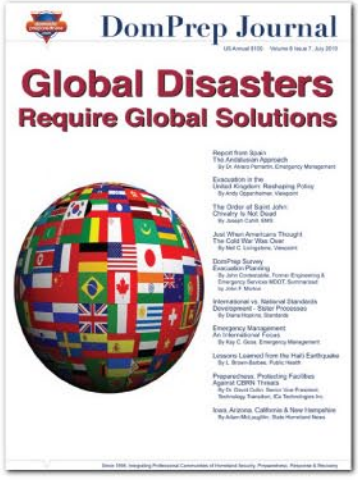


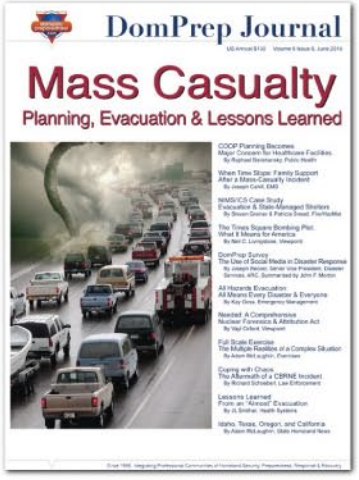


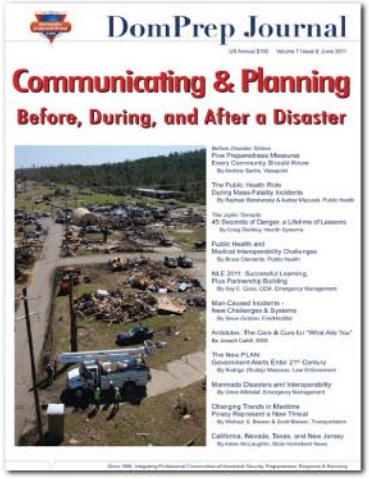


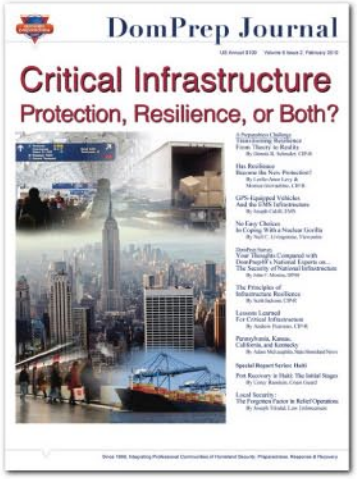


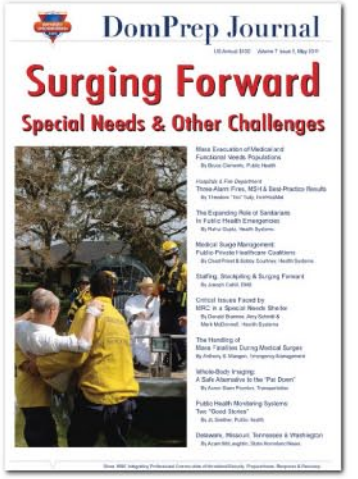












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