

opportunity offered to us to help a sister nation, we reiterate that we are engaged, if required again to respond with the same promptly and sense of humanity shown so far.

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### (P1-19) Disaster Medical System in APEC Japan 2010

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**Background and Method:** The preparedness for mass casualty is needed in political event. We have the experience to build up the disaster medical system in G8 summit in Okinawa and Hokkaido. But these two areas were resort area which had little population. This time Japan hosted APEC JAPAN 2010 which held in Yokohama City. We reported disaster medical system for this event in big city.

**Result:** We mobilized DMAT from 21 hospitals whole Japan. We set 11 teams in Yokohama city, 10 teams in 2 Airports. DMAT inspected related disaster base hospitals. These hospitals made the plan for receive mass casualty included the victims by CBRNE event and had the exercise. They set up the decontamination system during APEC leader's week. We also have the contingency plan to coordinate with fire department. This contingency plan included transportation plan for hospitals and coordination plan in site. In transportation plan, sever casualty transported dispersal for hospital in Yokohama within 25. For over 25, sever casualty transported intensive for 4 hospitals in Yokohama. After stabilization treatment in these hospitals, the casualty transported dispersal from these hospitals to outside of Yokohama. In coordinate plan in site included job description in command and control, decontamination and medical relief post.

**Discussion:** We established disaster medical system for APEC JAPAN 2010. This event hold in Yokohama City had the big population. Compare with former G8 summit, medical system put importance in mass casualty event. As a result, non mass casualty event happened. But this preparedness will contribute not only future same kind events but also accidental mass casualty event such as train accident.

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### (P1-20) Disasters and Women's Health: The 2010 Earthquake in Haiti

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**Background:** Recent reports have highlighted the health disparities that women and other vulnerable populations experience following disasters. Humanitarian groups have struggled to implement effective measures to mitigate such disparities during subsequent disasters.

**Objectives:** To analyze and provide practical solutions to mitigate barrier's to women's health encountered in Haiti following the 7.0 magnitude earthquake in January 2010.

**Methods:** In February 2010, a New York based team of emergency and international medicine specialists staffed the mobile

emergency department in Port au Prince at L'Hôpital de l'Université d'Etat d'Haïti.

**Results:** Common presentations included infectious diseases, traumatic injuries, chronic disease exacerbations, and follow-up for earthquake-associated conditions. Female gender-specific problems included vaginal infections, breast pain or masses, pregnancy-related concerns, and the effects of gender-based violence. Identified barriers to effective gender-specific care included communication, camp geography, supply availability, and poor inter-organization communication.

**Discussion:** Recent disasters in Haiti, Pakistan, and elsewhere have challenged the international health community to provide gender-balanced healthcare in sub-optimal environments. Much room for improvement remains. Although our assessment team was gender-balanced, improved incorporation of Haitian personnel may have enhanced patient trust, and improved cultural sensitivity and communication. Camp geography should foster both patient privacy and security during sensitive examinations. This could have been improved upon by geographically separating men's and women's treatment areas and using a barrier screen to generate a more private examination environment. Women's health supplies must include an appropriate exam table, emergency obstetrical and midwifery supplies, urine dipsticks, and sanitary and reproductive health supplies. A referral system must be established for patients requiring a higher level-of-care. Lastly, improved inter-organization communication and promotion of resource pooling may improve treatment access and quality for select gender-based interventions.

**Conclusion:** Simple inexpensive modifications to organized post-disaster medical relief settings may dramatically reduce gender-based healthcare disparities.

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### (P1-21) Medical Disaster Relief after the 2009 American Samoan Tsunami: Lessons Learned

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**Background:** Tsunamis most commonly occur in the "Ring of fire" in the Pacific due to frequency of earthquakes and volcanic activity. Damaging tsunamis occur 1–2 times yearly. On September 29, 2009, an earthquake on the Pacific floor caused a tsunami that struck American Samoa, Samoa and Tonga, with only 20 minutes warning.

**Objective:** To evaluate the disaster response in American Samoa by emergency medical services (EMS), the territorial hospital, and the Department of Health.

**Methods:** A retrospective review of EMS logs, public health records, hospital emergency department charts, and key-informant interviews over a 2-week period. Descriptive statistics were used to evaluate data.

**Results:** Three 5-meter waves struck the American Samoan islands, with land inundation as far as 700 meters. Many low-lying villages, including the capital city Pago Pago were affected.

A total of 33 people (8 male, 23 female, including 3 children) were killed by the water, with approximately 150 significantly injured. EMS runs increased 250% from normal daily averages, with island-wide responses significantly delayed by flood damage. The hospital in Pago Pago, situated near the shore and only 10 meters above sea level, utilized 75 staff to evacuate 68 inpatients to high ground as soon as tremors were felt. This process was completed in 20 minutes with no associated morbidity or mortality. Patient injury patterns for the event are similar to recent literature reports. Mobile clinics and alternate care sites established at outlying dispensaries were used to decentralize healthcare from the hospital. DMAT/DMORT teams from Oregon and Hawaii supported local healthcare initiatives. Post-disaster public health surveillance focused on identifying and limiting food/water-borne illnesses, dengue fever, and influenza-like-illness outbreaks, as well as disaster related PTSD.

**Conclusion:** The disaster response to the tsunami in American Samoa was effective. Disaster planning was appropriate and rapidly implemented. Post-disaster public health emergencies were minimized.

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#### (P1-22) Emergency Management Plan for H1N1 Major Epidemic Event – An Experience of a Private Hospital in Sao Paulo – Brazil

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**Objective:** To describe the Emergency Management Plan for H1N1 Major Epidemic Event to reduce the impact of the patients in a general emergency department.

**Method:** Einstein hospital has a catastrophe management program which is regularly tested for several scenarios: accidents, fire, and biological attack among others. Special concern is given for pandemics since we need to keep employees' fit to keep the hospital running as usual.

**Results:** On April 24, WHO issued an alert about the rising cases of influenza virus H1N1. Immediately we provided a plan of care for suspected or confirmed cases based on WHO and CDC guidelines. On April 29 increased level of alert to Phase 5 (pandemic imminent). The crisis management group created a multidisciplinary team with actions directed to Einstein's doctors and staff, 6,000 registered professionals, engineering, emergency care, laboratory, occupational medicine, hygiene, waste disposal, among others. Communication was maintained with government to update the official guidelines. Two specific drills were performed to train staff and support teams. Debriefings were made to all participants and lessons learnt were incorporated.

**Results:** Official figures showed that in São Paulo until August 2 have been reported 6,383 cases, 11.8% (756 cases) of these were reported by HIAE. From 5 May 2009 to 05 December 2009, 1,324 cases were reported. There were only four deaths of patients with influenza A H1N1 and two acquired in hospital and the daily business were not compromised by the epidemic showing the importance of a crises management plan.

**Conclusion:** The methodology of realistic simulations has showed effectiveness in the planning of how to manage Major Epidemic Events and improvement actions from this exercise has been showing best results for the patient flow and safety whenever this kind of situation happens at Hospital Albert Einstein.

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#### (P1-23) The Potential Terrorist Possession of Weaponized Plague in North Africa: A Forensic Epidemiology Case Study and Discussion of Principles in Tizi Ouzou, Algeria

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**Background:** A report of black death, presumably pneumonic plague (*Yersinia Pestis*) occurred in the terrorist group Al Qaeda in the Land of Islamic Maghreb (AQLIM) in 2009. Up to 40 members of AQLIM are reported to have perished rapidly.

**Discussion:** The event was managed by Algeria, but questions remain as to the nature of this event and the level of investigation that was applied. This paper is a discussion of the principle elements of a forensic epidemiology investigation that should have, but did not take place in Algeria. The need for improved forensic epidemiology investigation capability is illustrated in this event due the unique problems inherent in the investigation of intentional outbreaks.

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#### (P1-24) Future Weapons of Mass Destruction: Preparing For Emerging Threats

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**Introduction:** Civilian Weapons of Mass Destruction (WMD) training involves preparing for threats well-known to the military since World War II. Present and future developments in Chemical-Biological (CB) research have resulted in new potential agents, modes of action, and methods of delivery. Chemical-Biological defense training should include these new agents and anticipate contact with previously unknown ones. The natural response to an unknown threat is fear and panic, out of proportion to the actual threat. Specific training in management of new pathogens and toxidromes should be incorporated into existing preparedness regimes. Leadership skills that address uncertainty and inspire constructive responses will increase resiliency.

**Methods:** Literature Review

**Results:** Recent and Future CB Agents: (1) 4<sup>th</sup> Generation AchE inhibitors: Novichoks, Substance 33, etc.; (2) Genetically enhanced bacteria and engineered chimeric diseases; (3) Modified viral diseases: Variola, Influenza, filoviruses, flaviviruses, arenaviruses; (4) Bacteriophage induced diseases; (5) Agents targeting specific racial or genetic groups; (6) Mid-spectrum agents; (6) Bioregulators: Substance P, vasopressin, enkephalin, etc.; (7) Novel toxins: tetrodotoxin, SEB, saxitoxin, etc.; (8) Hallucinogens and incapacitants (LSD, DMT, carfentanyl, cis-fluoro-ohmefentanyl); (9) Prions and infectious nucleic