



USPHS Pharmacy Deployment Roles and Lessons Learned from Hurricanes Gustav and Ike

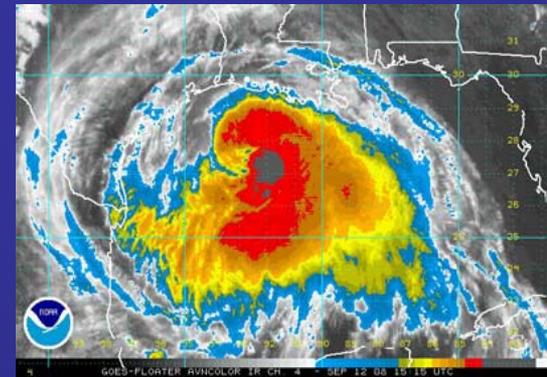
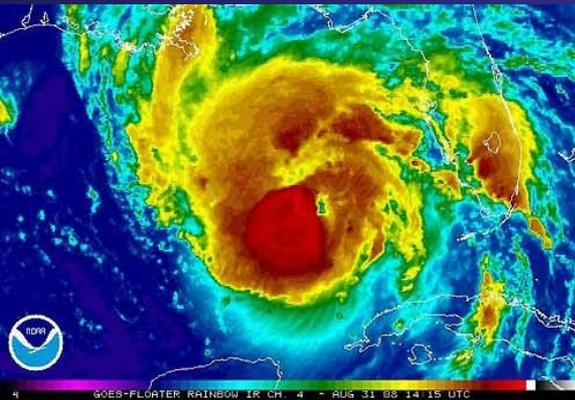
2009 USPHS Scientific and Training Symposium
Pharmacy Category Day

Presenters

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Overview

- Field/FMS Pharmacy Missions
 - Factors that Impact Pharmacy Operations
- Pharmacy Care When Deployed
 - Sufficiency of care
 - Formulary considerations
 - Continuity of care
- Field/FMS Pharmacist Roles Beyond Pharmacy Care
- Other Pharmacist Missions and Roles
- Demobilization and After Action Reports

Key Reference: *PHS Officers Guide: Principles of Public Health Emergency Preparedness and Response (in press)*



Field/FMS Pharmacy Mission

- Determine pharmacy location
- Identify and establish security
- Determine layout of field/FMS pharmacy
- Assure availability of medications and vaccines to address mission requirements





Field/FMS Pharmacy Mission

- Control medications, code response kit/cart setup, medication distribution procedures, Electronic Medical Record (EMR), dispensing records
- Store, secure, package, label, and distribute meds
- Resupply and maintain pharmaceutical inventory
- Reassess pharmacy mission needs





Similar Missions, Different Challenges for Pharmacists

Hurricane Katrina
Peter Maravich
Assembly Center
(PMAC), LSU
2006

Hurricane Gustav
Huey P. Long Field
House, LSU
2008

Hurricane Ike
Reed Arena
Texas A&M
2008





Factors that Impact Pharmacy Operations

- Type and severity of the emergency event
- Availability of qualified medical and pharmacy personnel in the community
- Timing of the emergency response (e.g., pre-event evacuation, post-event casualties)
- Number of patients and patient acuity levels
- Patient caregivers
- Patient's own medications
- Drug formularies available (FMS, DMAT, SNS, other)
- Supply and resupply status
- Volunteers
- Cultural issues
- Quarantine or constant observation required



Pharmacy Care When Deployed

- Medication reconciliation at admission and discharge
 - Review and verify medication use histories
 - Utilize pharmacy resources
 - Patient's pharmacy, ICERx, RxResponse.org
- Identify medications and medication issues
- Assess compliance
- Counsel patients
- Report adverse events, medication errors, and drug seeking behavior
- Provide team care and support
- Provide immunizations





Pharmacy Care: Sufficiency of Care

- All resources required to provide standard of care may not be immediately available in a disaster environment
- Provide highest level of pharmacy care possible
- **Stabilize and maintain patients until transfer to setting for definitive treatment or until disaster conditions resolve**
- Chronic conditions may be exacerbated in a disaster
 - Off medications, altered diets, stress
- Emergent disaster related medical issues
 - Trauma, infection, physical and psychological stress, mental health issues, addiction/withdrawal, “worried well” phenomenon



Pharmacy Care: Formulary Considerations and Therapeutic Drug Substitution

- Limited formularies require therapeutic drug substitutions
- Advice to healthcare providers ensures optimal medication outcomes
- Carefully evaluate non-formulary requests and identify formulary substitutions if possible
- Provide formulary updates to healthcare providers regularly (beforehand when possible)



“Once immediate lifesaving activities are complete, the focus shifts to assisting individuals, households, critical infrastructure, and businesses in meeting basic needs and returning to self sufficiency”

**National Response Framework
US Department of Homeland Security
January 2008**



Pharmacy Care: Continuity of Care

- Assist individuals in meeting basic needs and returning to self-sufficiency
- Return patient's own medication when discharged
- Coordinate prescription histories, transfers, and refills with local pharmacy
- Provide discharge medications adequate to ensure continuity of care
- Coordinate Emergency Prescription Assistance Programs (EPAPs) for implementation in community pharmacies



Field/FMS Pharmacist Roles Beyond Pharmacy Care

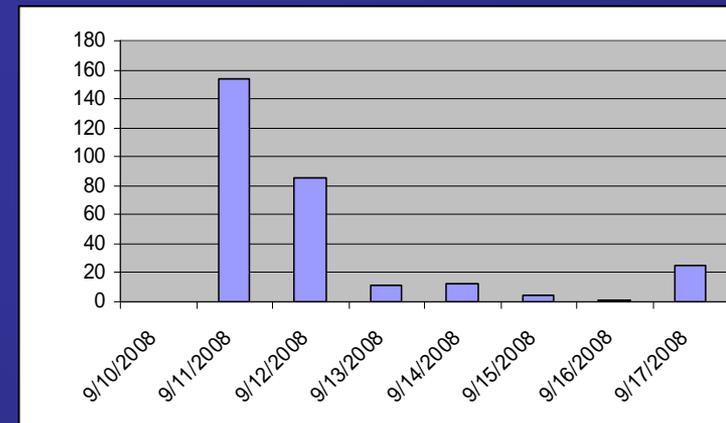
Administration and Data Management

- Electronic Medical Record (EMR)
- Medical documentation
- Insurance
- Discharge planning



Triage

- Patients arrive in large numbers and overwhelm intake personnel
- Performing triage enables medical team to focus on patient medical needs



Hurricane Ike, College Station, Texas Patient Admissions
Reference: *Decision Making in Disaster Deployment*.
RDF #1 Training. December 4, 2008. CAPT Steven Hirschfeld



“Response must be quickly scalable, flexible, and adaptable”

**National Response Framework
US Department of Homeland Security
January 2008**



“The role of the pharmacist is not static: it is related directly to the disaster situation, with an evolving mode of operation”

**Reference: *Field Pharmacies*.
CAPT Mark Gonitzke, CCRF 1994-1997**



Other Pharmacist Missions and Roles

Community Medical Care and Assistance

- Augment medical care teams/hospital overflow
- Medical strike teams
 - Community outreach to isolated areas
 - Humanitarian assistance
 - Special events of national significance

Mass Medication Distribution

- Prepare/distribute pharmacy caches
- Point of distribution
 - Prophylaxis/treatment of outbreaks or CBRNE emergencies



Other Pharmacist Missions and Roles

Community Needs Assessment

- Evaluate medical and pharmacy infrastructure
- Evaluate shelters and access to healthcare



Louisiana Shelter
Assessment
Hurricane Katrina
2006



Other roles? Be ready to serve, mission needs may evolve rapidly!





Demobilization and After Action Reports

Demobilization

- Prepare transfer of pharmacy supplies and medications
 - Controlled substances
 - Dispensing records

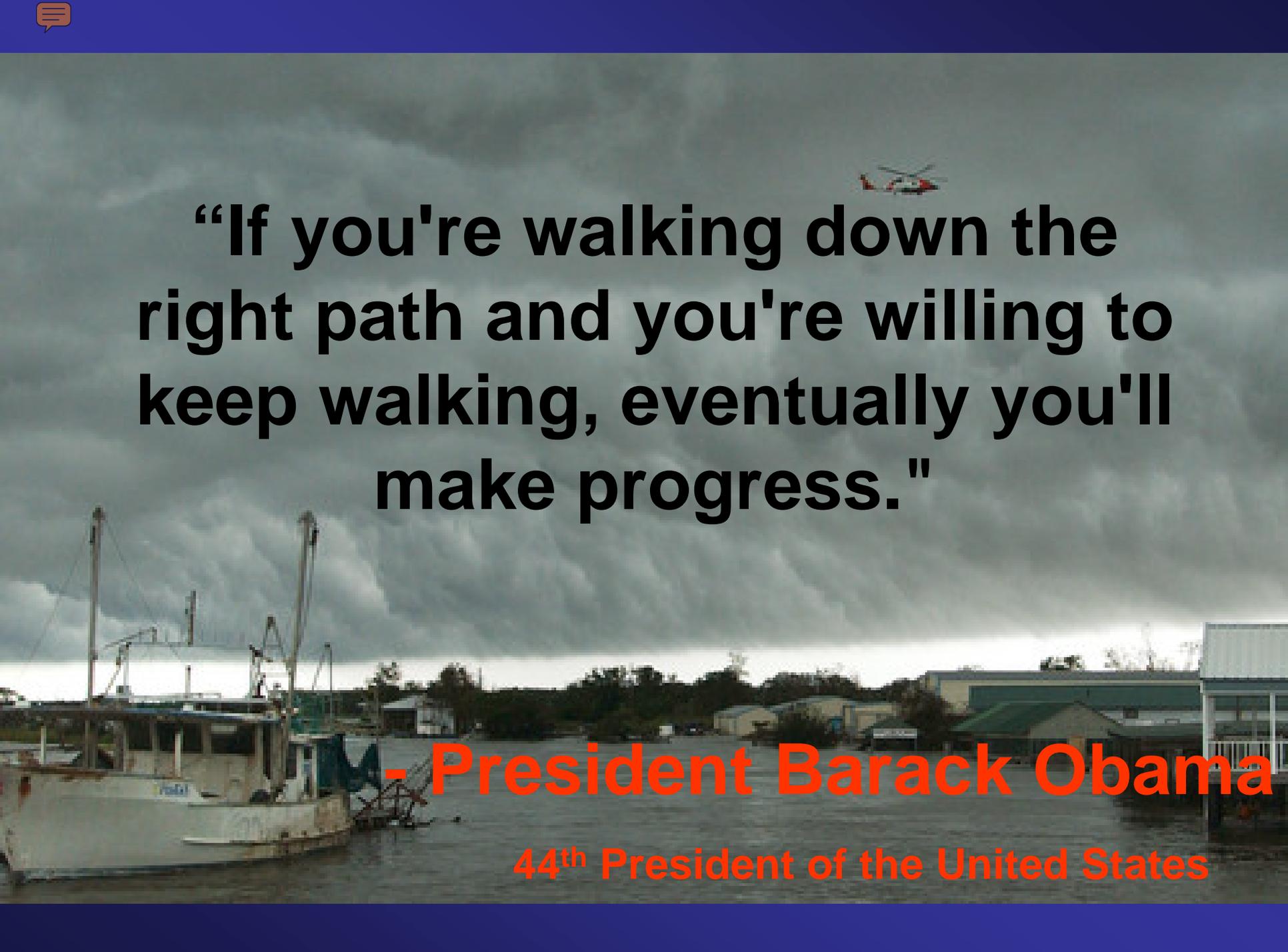
After Action Reports

- Provide lessons learned and *constructive* advice for future planning
- Use 'lessons learned' to improve response capabilities
- Serve on process improvement teams

Acknowledgements

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- DC COA website (<http://albums.phanfare.com/6999475/2009/>)
- My wife, LT Jade Pham





“If you're walking down the right path and you're willing to keep walking, eventually you'll make progress.”

- President Barack Obama

44th President of the United States