After The Festival:

A retrospective review of the Las Vegas mass shooting. Observations, Insights, and Lessons Learned

Christopher Lake, PhD
Executive Director, Community Resilience
Nevada Hospital Association

Nevada Hospital Association

Las Vegas, Nevada

- Approximately 83 square miles
- Roughly ¾ of the State's population lives in Clark County
- Las Vegas was the 30th largest city in the USA at the time. Now it's 28th and it becomes one of the 10 largest in population during major events
- Las Vegas is the largest hotel market in the USA (4th in the world) with 172 hotels and more than 156,000 resort hotel rooms
- Las Vegas is home to 3 of the worlds 10 largest convention centers
- 43 million visitors come to Las Vegas every year.

Route 91 - Harvest Festival

- 3 Day country music festival
- 22,000 attendees
- Outdoor Venue is approximately 15 acres
- All attendees were issued RFID arm-bands.
- The concert started at 3pm
- Jason Aldean takes the stage at 9:40pm

Sunday October 1, 2017 (10:07p)

"...Dispatch, Engine 11

There's a large crowd running from the music festival down here. Do you have reports of anything?

It sounds like gunfire..."

A Day Like No Other

October 1, 2017, at 10:05pm a lone gunman opens fire with rapid fire, long-guns, from an elevated, distant perch.

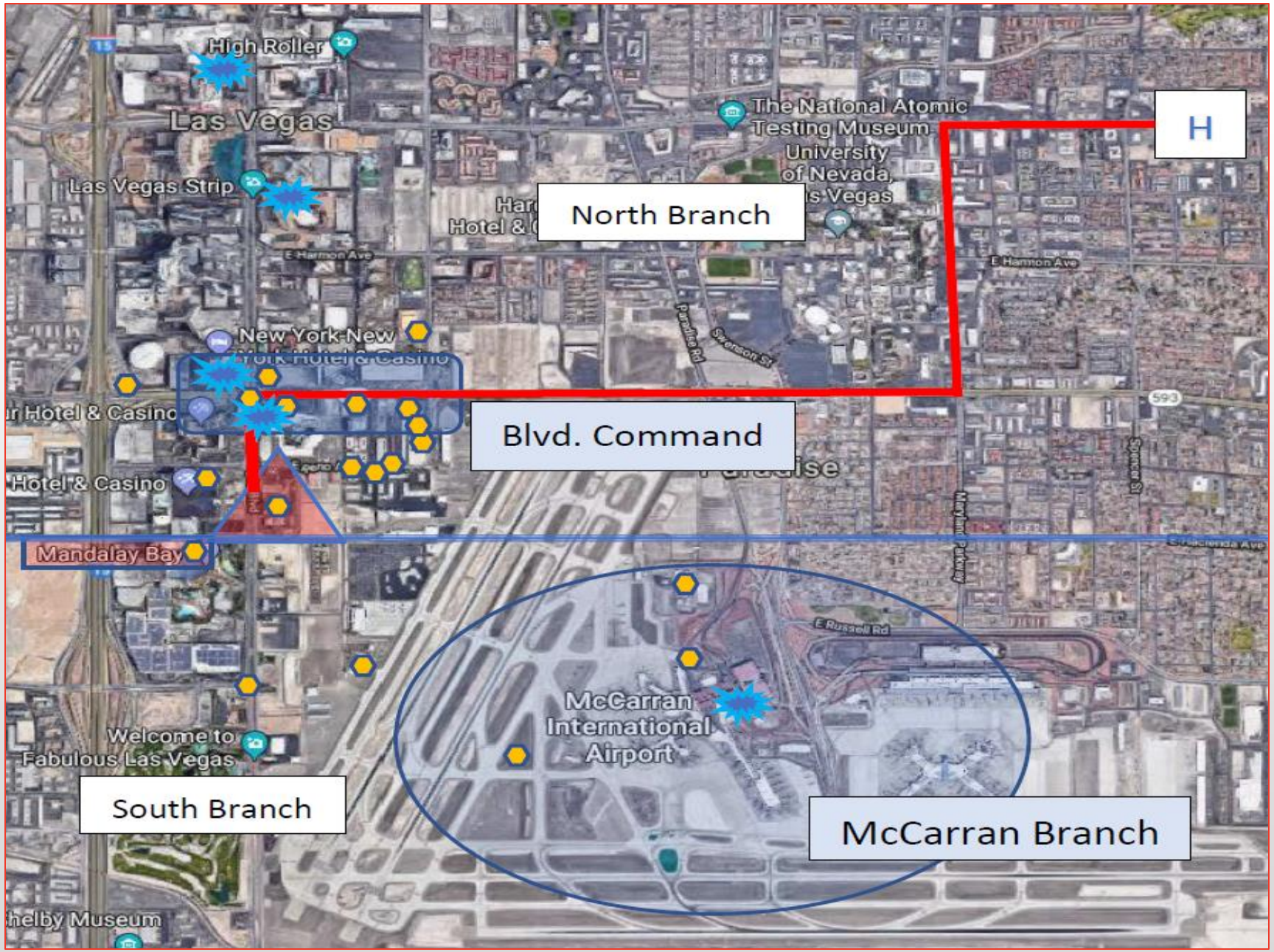
There were 22,000 concert attendees

More than 700 people were injured

530 +/- individuals required emergency medical care

58 concert-goers were killed

NATO 5.56 was the ammo; Resulting in direct hits being DOAs. Most GSW injuries were from ricocheted bullets and bullet fragments



A Complex Incident

- 20 Individual patient locations with approximately 180 patients
- During the response there are 5 additional active shooter calls on “The Strip”
- >350 patients transported to local hospitals without any EMS interventions

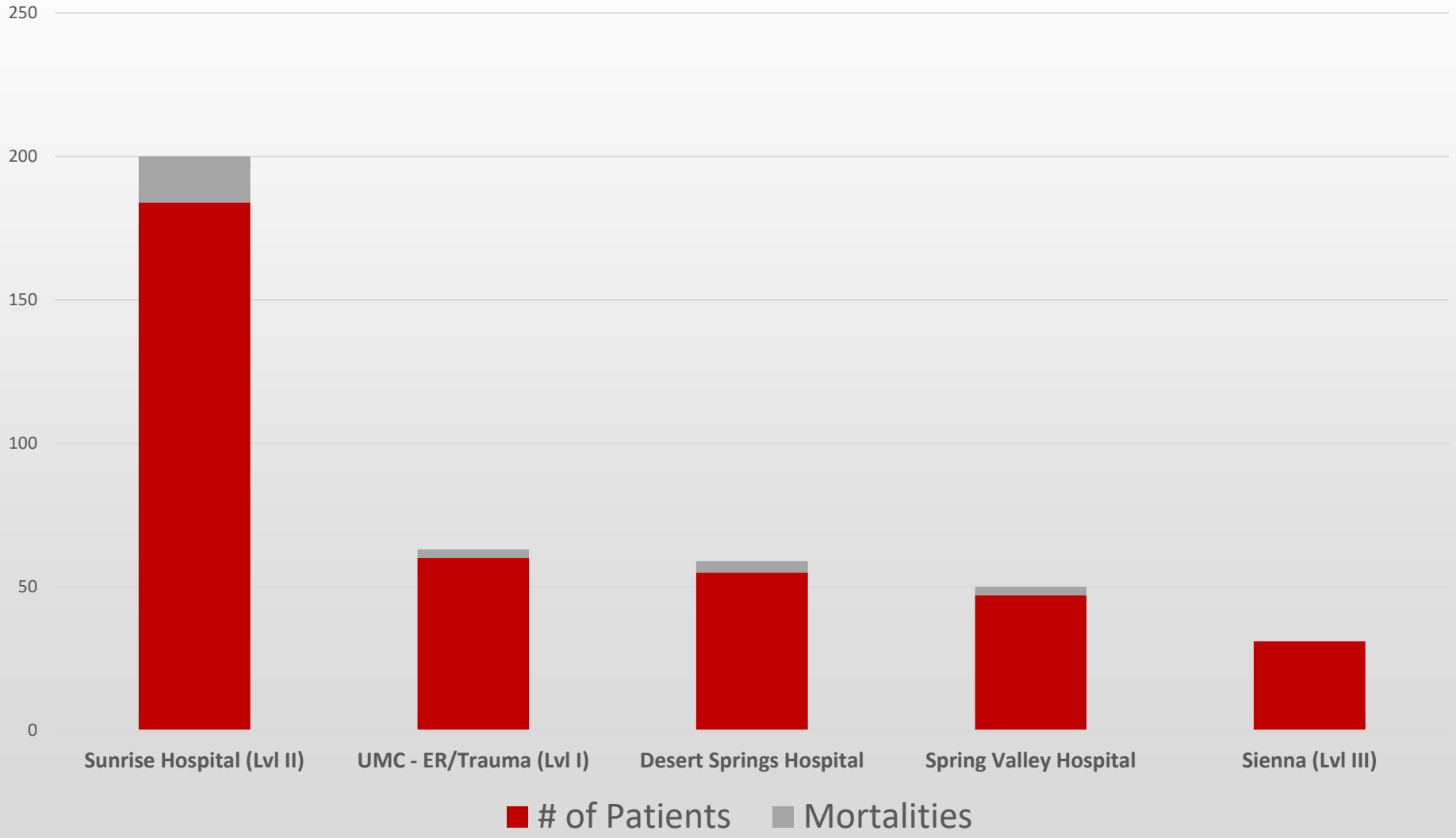
The Hospital Experience

No Notice
High Volume
High Acuity
High Risk
Heightened Emotions
High Stress

Zero Situational Awareness

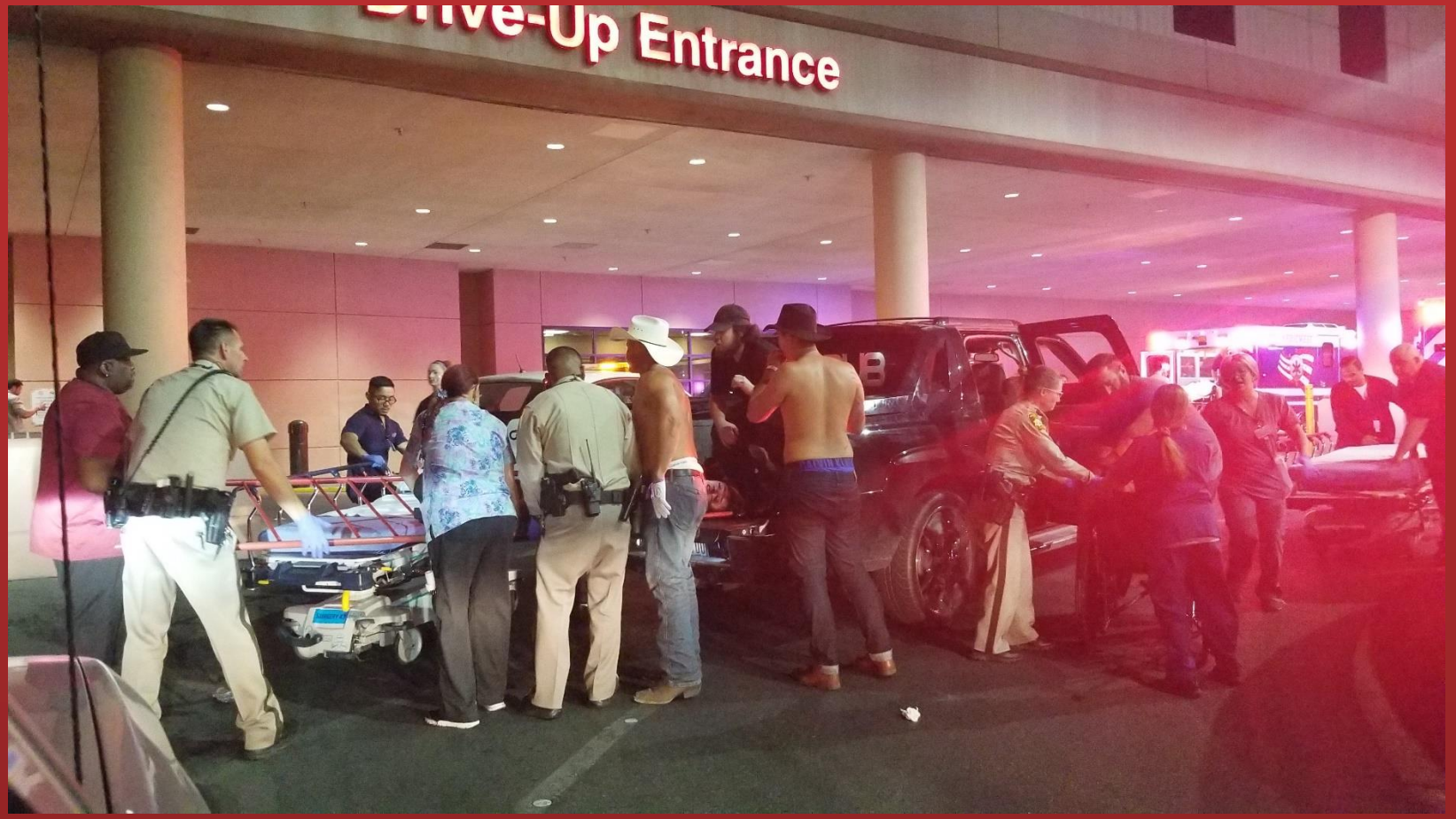
Video from Facebook

Patient Distribution (by number of patients initially received)



Mortalities include:

- DOAs
- Unsalvageable
- Intra-operative
- Withdraw of care



THE HOSPITAL RESPONSE

Emergency Operations Plans

- Code Triage – “All hands-on deck”
- Initiate Hospital Incident Command System
- Initiate Lock Down and Security Plan
- Initiate Emergency Communications Plan
- Initiate Emergency Operations Center
- Initiate Hospital Surge Plan
- and triage, stabilize and treat incoming patients…

Without Any Notification

- on a Sunday night
- with minimal staffing
- with low supply PAR levels
- Zero situational awareness

Triage and Initial Treatment

News World Americas

Las Vegas shooting: Iraq veteran steals pick-up truck to save lives after hearing gunfire

Ex-marine drives dozens of wounded to hospital after being caught up in festival massacre

Mr. Winston, a sergeant who served from 2006 to 2011, told the injured to apply pressure to wounds as he attempted to speed to **Desert Springs Hospital** "before they bled out".

He fears some of his passengers, who included a woman with neck and chest injuries, may have died.

"I can't be for certain," he said. "There's a few that I don't think probably made it. They were pretty limp when we were pulling them out of the truck, but they still had a pulse, so I'm hoping for the best."

- Received 200 patients from the music festival
- Majority of patients arrive via private autos
- ED census reaches **228** by 02:47
- 124 Gun Shot Wounds (GSW)
- 92 patients have no identification
- 5 major surgeries within the first hour and a half
- 58 surgeries in the first 24 hours
- 20 ORs operating simultaneously
- 516 Blood products administered

Sunrise Hospital Medical Center

- Received 60 patients from the scene
- Received 44 patients as interfacility transfers
- 4 patient mortalities
- 12 critical trauma
- 20 surgeries in first 24 hours
- 70 units of blood used
- 60 patients admitted
- 44 patients treated and released

University Medical Center (UMC)

- 239 bed community (non-trauma center) hospital
- Mapping apps, showed Desert Springs as the closest hospital to the concert
- First patients began arriving while the shooter was still active, and before any “city-wide” alerts
- 58 critical patients
- “We ran out of everything”
- Upwards of 25-30 patients treated and released without creating a health record

Desert Springs Hospital

- Community (non-trauma) Hospital
- Received first shooting patient before shooting stops
- 50 patients received, predominately via private auto
- 3 mortalities
- “Today we are the trauma center”

Spring Valley Hospital Medical Center

Observations & Insights

Observations that require planning considerations

The BIGGIES…

- Electronic Health Records
- HIPAA
- Communications
- Surge Plans vs Throughput
- Non-Traditional Patient Transportation
- Mental Health
- Mutual Aid Agreements

More than 40 additional considerations identified…

Electronic Health Records –

"Charting? Forget about it!"

Patient registration too slow

Too many mandatory screens or required fields to fill-in

Unable to group patients by event

Some systems don't assign trauma alias'

Difficult to enter data retrospectively

Some systems don't run reports until the following day

HIPAA –

"PHI trumps FBI all day, everyday"

Lots of confusion related to what is Protected Health Information (PHI) and what is not

Exemptions related to emergencies, terrorism and/or declared disasters

Law enforcement organizations (LEO) do not fall under HIPAA

No community standard

No predefined essential elements of information that LEO needs during an event

Communications –

"Internal and External, It's all problematic"

Internal Communications

Not enough radios, wrong type of radio, who was supposed to charge these damn radios?

Phone trees – not prioritized by incident type. Too heavily focused on providers (needed EVS, Radiology, Surgery Techs, etc..)

VoIP crashed due to numbers of incoming and out-going calls. Not enough physical phones or people to answer them

Cell phones used universally. Large "dead spots" within hospitals with no service

Radio applications, downloaded on cell phones worked with Wi-Fi connection and talk groups could be established

No common lexicon

Communications –
External

Families

Manage expectations. Define the schedule for family briefings and stick to it

Communicate with families via social media if appropriate. Frequent tweets such as “200 patients treated so far, injuries range from twisted ankle to severe trauma” made families feel like they weren’t forgotten

Equipment

Families, employees and LEO will need phone chargers and access to outlets.

Need to be able to segregate phone lines to be out-going numbers only, or you may never call out

Protocol and Policy

Identify numbers to call: if you have a foreign national as a patient, how to talk with the FBI and local PD, Coroner’s Office, dignitaries, etc..

Always get a call-back number first thing!

Press

Social media addresses (to monitor) more valuable than press releases

Have a designated PIO… team

PIO team should provide accurate information, be the single point of contact for the press and should try and clear-up any misinformation on social media

Off-Duty Staff Members

Update the staff on the current situation at regular intervals

Staff that was told not to come in, needs to understand why. Staff felt disgruntled and “left-out” if they weren’t immediately called in

Pre-Plan External Communications

Before the event, determine who gets what information and how. Common hospital complaint was that too many organizations were calling or demanding the same information

Surge Plans –

"Bed availability means nothing"

Throughput, Throughput, Throughput

It's not how many inpatients you can handle that matters during the initial crisis…it's how many people can you stabilize that saves lives.

- Critical patients to surgery
- Treat and street as fast as you can
- Re-evaluate everyone who is currently admitted
- Transport minor or moderate injuries to more remote facilities

Lessons Learned

THROUGHPUT is what saves lives.

All efforts should be focused on getting patients quickly through the ED and into one of four dispositions:

1. Surgery
2. Admitted
3. “Treat and Street”
4. Transferred

ED is primarily for airway, stabilization and vascular access.

1 THROUGHPUT

Managing patient flow is much more important than being able to “surge” by some percentage of beds

The majority of critical patients arrived via private auto or Uber. Unloading patients from pick-up trucks and autos is very labor intensive

Plans need to incorporate the very real possibility that no triage, first-aid or paramedic advanced level treatments will have been completed prior to arrival

Likewise, hospital plans must incorporate interfacility transfer plans for instances when NO EMS units are available

2
Non-Traditional Transportation Methods

Hospitals are physically designed, and patient workflow is based on the assumption critical trauma patients will arrive via ambulance

Examples:

- Crosstrain HR personnel to perform case management or patient registration functions
- Develop plans that can be instituted based on “mid-night” staffing levels and Sunday afternoon PAR levels
- Conduct full-scale exercises on swing and graveyard shifts to build plan familiarity
- Develop abbreviated patient registration and charting for large scale events
- Modify master mutual aid agreements (MMAA) so that lower-level employees can activate
- Train and exercise HICS/EOC activation using only night shift personnel
- Standardize processes (IT downtime charting may be the same process for MCIs, etc.)
- Emergency credentialing and disaster declarations

3
Time is the enemy

All plans, procedures and exercises, should be refined to streamline <u>every</u> process.

Some of our established practices

- The C3 + PENMAN approach for initial reporting
- “One-Click” Mutual Aid Requests
- Centralized repository of information
- Use of “watchboard(s)” and prior access
- Hospital System Status Monitoring
- Hospital Area Command Procedures
- Pre-established Executive Orders

4
Minimize the Initial Information Exchange Process

Multiple and frequent requests for information take vital resources away from patient care.

Terminology confusion can cause patient care delays or incorrect hospital destination decisions

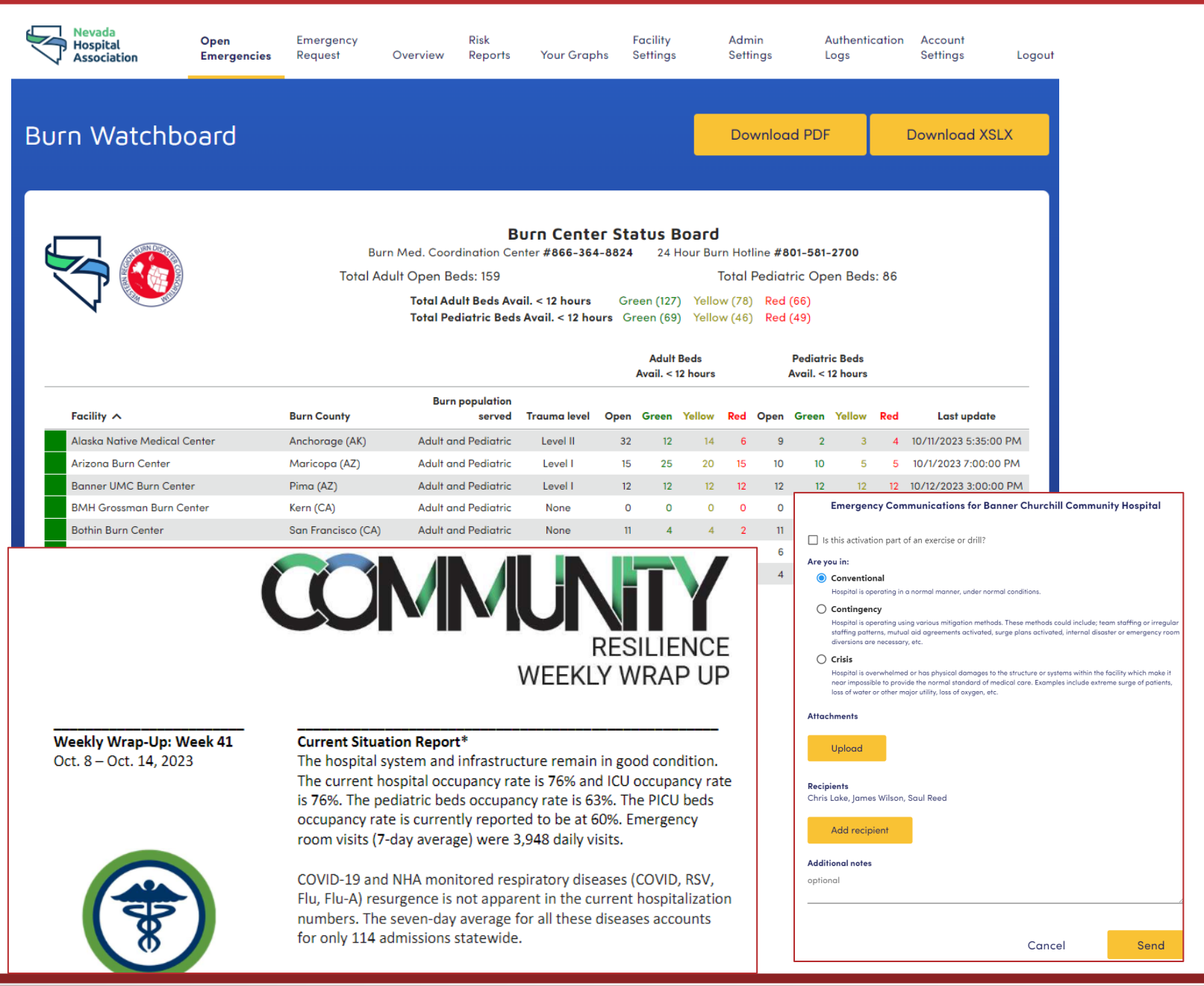
Use of “codes” ineffective during MCI situation when multiple plans are being activated.

Imagine the overhead page for this MCI, with fear of additional shooter(s) on campus..

“Attention Code Triage, Multiple Code Blues in the ED, Code Silver, EM Team to EOC #1”

5
Common Lexicons

Clear text and common terminology will help eliminate confusion and help avoid misunderstandings



6
Pre-Event Communications

All State Emergency Managers

All hospitals (c-suite, infection control, cyber, supply, ED, EM, ICUs)

All public health entities

Governor's Office

Federal Partners (ASPR, CDC, CMS, DoD)

National Guard Leadership

Law Enforcement / Fusion Centers

All NV Coalitions

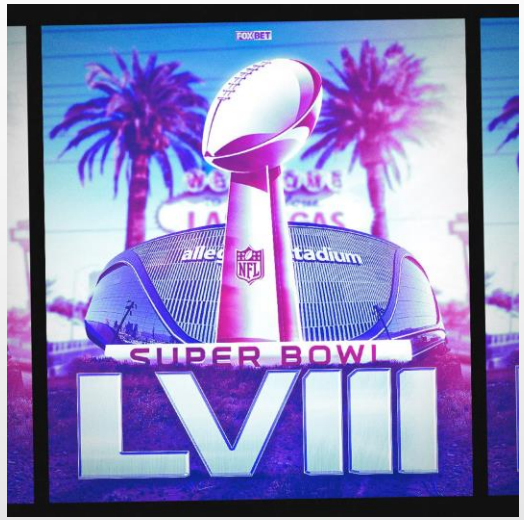
Cross-Boarder Partners

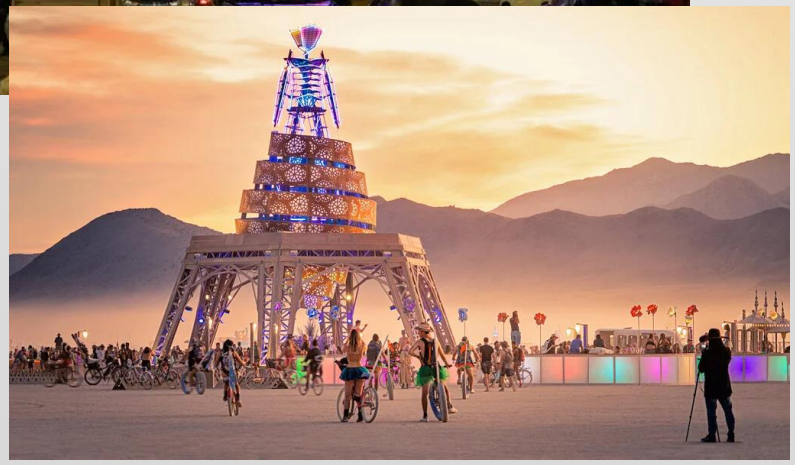
All Western US and Western Canada Burn Centers

Community leaders, public officials and elected representatives

Local and National Members of the Press

Questions & Answers...





Nevada Hospital Association

Christopher Lake, Ph.D.

Executive Director, Community Resilience

775.827.0184

chris@nvha.net

www.linkedin.com/in/drchrislake/

"It takes the whole community"

Thank You