

Alberta Emergency Management Agency Summit 2014

Alberta Health Services Hospital Evacuations

**Cheryl Bourassa,
Executive Director,
Emergency / Disaster Management
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Outline

- Goal of Hospital Evacuations
- Hospital Evacuation Principles
- Evacuation Considerations / Options
- Evacuation Planning in AHS
- Our experiences

Goal of Hospital Evacuation

- Moving all patients, visitors and staff out of dangerous and/or damaged facilities as safely as possible is always the goal of an evacuation.
- It is understood that **care and processes will not be optimal in an evacuation scenario.**

Hospital Evacuation Principles

- Full evacuation of a hospital should generally be considered as a last resort
- Safety is always the primary concern
- Simplicity is key
- Flexibility is vital
- Self-sufficiency at the unit level is important (not always attainable)
- Assembly locations must be identified
- Individual patient care units should stay together at the Assembly Points

Hospital Evacuation Principles (cont)

- EMS and other external patient transporters should generally not be asked to come into the hospital to load patients (Not always possible - site, resource, and event driven)
- If time permits, most acutely ill / vulnerable would be evacuated first; if not, most mobile are evacuated first

Harvard School of Public Health; Emergency Preparedness and Response Exercise Program; Hospital Evacuation Planning Guide; 2012

Reasons to Evacuate

Literature indicates, hospital evacuations have occurred for the following reasons:

- Structural damage
- Anticipated / actual air quality issues
- Anticipated / actual natural events (Wildfires, hurricanes, floods, etc.)
- Loss of utilities
- Faculty fire
- Bomb threat

Considerations

Pre- Event Considerations

- Nature of event (arrival time, magnitude, area of impact, duration, etc.)
- Anticipated impact on the hospital (utilities) and community (access / egress)

Post event considerations

- No immediate threat to patient / staff safety
- Immediate threat
- Potential / evolving threat

Options to Consider

- Shelter in place
- Horizontal or lateral movement
- Vertical evacuation
- Complete facility evacuation
- The situation may require all methods

Evacuation Planning in AHS

- Evacuation is one of 10 Emergency Response Codes utilized in Alberta Health Services
- Planning is based on best practice
- Intended to meet or exceed industry standards (CSA Z1600, Accreditation Canada Standards)
- Aims to address regulatory code requirements (OHS Code, Fire Code)
- Standardized templates / processes

Standard Emergency Response Codes

- **Code Green (Evacuation) *****
- **Code Blue (Cardiac Arrest / Medical Emergency)**
- **Code Red (Fire)**
- **Code White (Violence / Aggression)**
- **Code Purple (Hostage)**
- **Code Yellow (Missing Person)**
- **Code Black (Bomb Threat / Suspicious Package)**
- **Code Grey (Shelter in Place)**
- **Code Brown (Hazardous Materials Spills)**
- **Code Orange (Mass Casualty Incident)**

The Plan



AHS Evacuation Plan Components

Use of Incident Command

- Unit level
- Site level Command Post
- Zone level Emergency Operations center
- Provincial level Emergency Coordination Center

Phased Approach

- Phase I From the immediate room
- Phase II From a Department/Unit
- Phase III From a Floor
- Phase IV From a Building

AHS Evacuation Plan Components (cont)

Designated Receiving Areas / Muster Points

- Standardized signage

Standardized Templates / Flow Chart

- Authority to activate
- Notification process
- Roles of evacuation area Staff
- Roles of receiving area's Staff
- Roles of non – impacted areas
- Recovery (Business and Staff Support)

Our Experiences

- Room / Unit evacuations (Fire in patients room, hazardous spill)
- Shelter in place / Lockdown (Weapon)
- Community facility (Bomb Threat)
- Hospital(s) (Slave Lake Fires; Floods 2005 and 2013)
- Long Term Care Centers (Floods 2005 and 2013)
- Pre-emptive and / or response related

Our Experiences – Floods 2013

- 3 impacted zone
- 9 AHS facilities / buildings were evacuated and /or sustained damage
- 3 hospitals were evacuated (High River, Sundre and Drumheller
- Involved 69 acute care patients
- 15 AHS facilities expanded service provision to accommodate displaced patients and programs
- Approx. 380 procedures or surgeries were cancelled or transferred to other areas

Our Experiences – Floods 2013 (cont)

- Approx 750 Long Term Care and Supported Living residents were evacuated from 9 sites
- Hundreds of Home Care clients displaced
- Staff were displaced from places of work; many Staff had homes that were damaged or destroyed
- Physician Offices/evacuated and/or sustained damage
- Damage to main frame servers; patient records
- Equipment (beds, geriatric chairs, stretchers, etc.) shipped from central stockpiles to sites receiving evacuees

Our Experiences – Multiple Sites



From Inside the High River Hospital



Pictures taken by a Staff member from inside the High River Hospital as the waters were rising.

Leaving the High River Hospital...



Patients and staff await the evacuation teams

Drumheller Health Center



Acute care patients from the Drumheller Hospital were evacuated to facilities in Hanna, Stettler, and Three Hills.

The remaining patients are sheltering in place

Sundre Hospital Evacuation



The decision was made to evacuate the hospital as flood waters rose.

Six acute care patients and 12 long term care patients were transferred to neighbouring hospitals in Olds and Innisfail,

Essential Services Uninterrupted

Despite overland flooding damage and isolation

- Oilfields Hospital in Black Diamond lost service utilities and was isolated due to road washouts, but did not sustain damage.
- Canmore Hospital remained open
- Covenant Health Banff Mineral Springs Hospital lost service utilities and was isolated due to road washouts, but did not sustain damage.

Black Diamond's Oilfields Hospital



- Town officials feared the water supply might be in jeopardy after flooding, although patients continued to use facilities indoors, the 60 or so staff moved outdoors as part of water conservation
- 15 acute-care patients and 30 continuing-care patients were on site

Canmore....



John Gibson/Getty Images

Canmore



- Hospital looked like an island,
- Some flooding in the basement
- Roads were washed out, reducing access to Bow Valley residents
- ED remained open: patients were ferried by truck into the hospital
- Site relied on emergency power for several hours
- Patient care remained priority
- Surgeries were postponed
- 90 acute-care patients and 23 continuing-care patients were on site

The Berm



Med Hat - Field Hospital



A Field Hospital was established at the Family Leisure Centre in the City's northwest in anticipation of the bridge closures which would have essentially isolated residents on the north side of the river from the Medicine Hat Regional Hospital.

Pictured are extra beds with the hockey arena in the background.

Med Hat - Field Hospital



In anticipation of all types of patients, the Field Hospital was even equipped with a Labour and Delivery room including a neonatal warming station.

Med Hat - Field Hospital



A portable X-ray machine was brought over from the Medicine Hat Regional Hospital

Med Hat - Field Hospital



The Field Hospital was staffed with an Emergency Department Physician, Nursing staff, Paramedics, Lab Technicians and an X-ray Technician.

Continuing Care Evacuation

Several continuing care sites (Hospices, Drop In, etc.) and Long Term Care Facilities evacuated and / or received damage:

- Medicine Hat: St. Joseph's (evacuated)
- High River: Medicine Tree Manor (damage sustained)
- Okotoks: The Heartland
- Calgary:
 - Agape Hospice
 - Bow View Manor
 - Bow-Crest Care Centre
 - Rouleau Manor (damage sustained)
 - Edwards Place (damage sustained)
 - King Tower (damage sustained)
 - Murdoch Manor (damage sustained)
 - Salvation Army Centre of Hope (damage sustained)
 - Alpha House (damage sustained)
 - Drop In Centre (damage sustained)

Continuing Care Evacuation (cont)

- 17 patients at Agape Hospice and more than 300 patients at two continuing-care sites, Bowview Manor and BowCrest, were relocated as the facilities were evacuated.
- Approx 750 Long Term Care and Supported Living residents were evacuated

Other Impact....



Patient records were damaged by the flood waters.



Boats, motor homes, personal belongings, etc were moved by the raging flood waters.

Community Evacuations

- >300 AHS staff were deployed to community evacuation centres (Nurses, Mental Health professionals, etc.)
- Community Health Nurses continued to visit temporary lodging facilities following the floods
- Personal protective equipment was provided to the Red Cross for distribution within the Communities



High River, Alberta

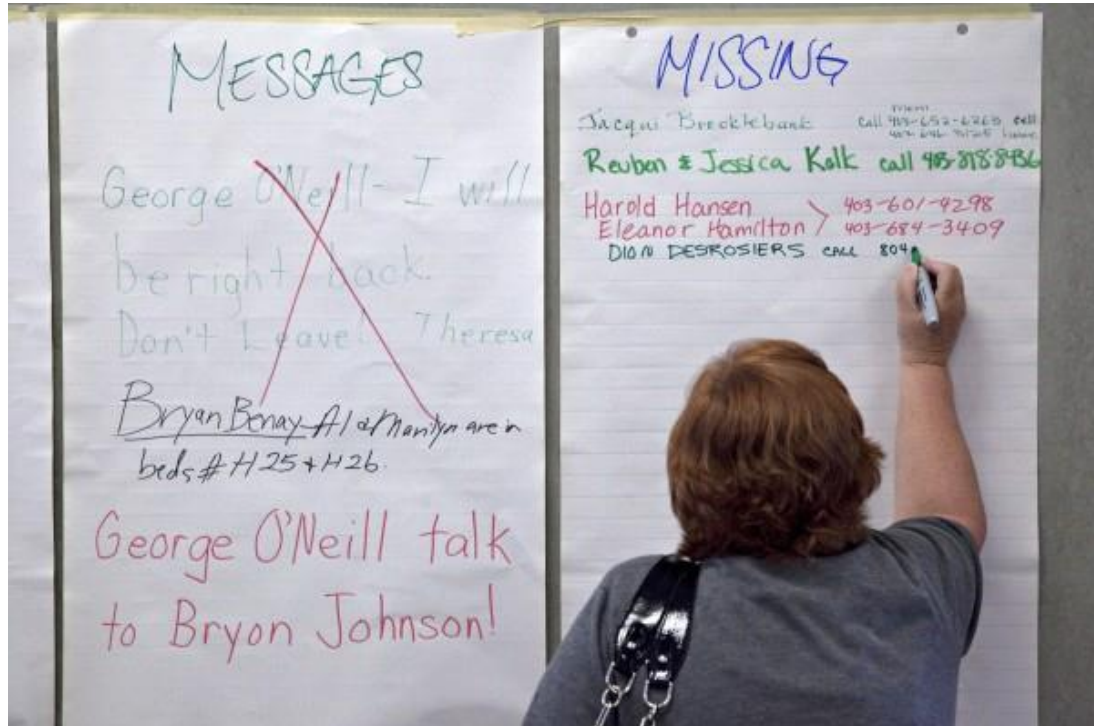
Community Evacuations

Following the rapid evacuation and dispersal of thousands of individuals, a number of evacuation centres were set up for the housing and information needs of evacuees.

There were many high needs individuals at these sites requiring immediate medical triage, assessment and follow-up care.



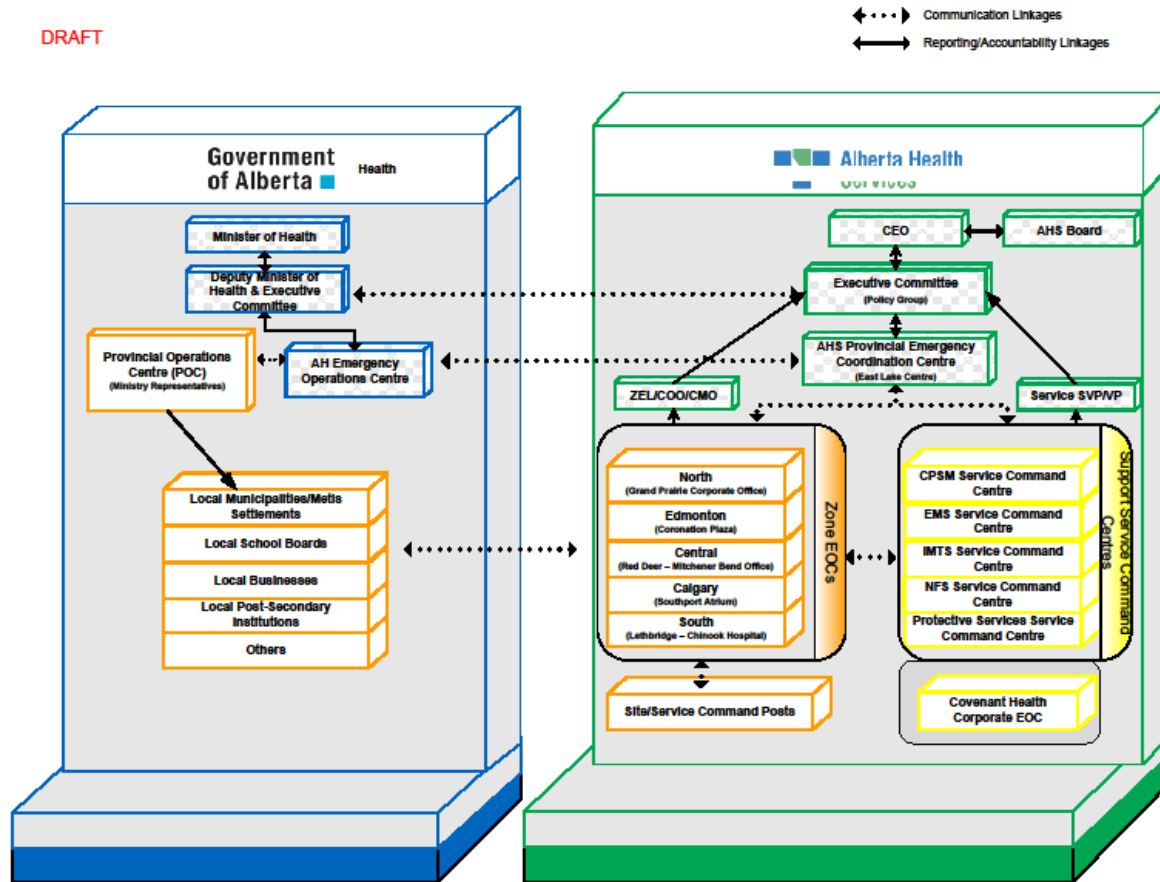
Evacuation Centers



- In High River, the 1st evacuation site was the Highwood High School
- Later evacuated to Nanton
- A 2nd site opened in Blackie
- Nursing and Mental Health Staff were onsite
- Concerns that could not be handled on-site we referred to Okotoks or Vulcan

The Communication Board at the Blackie Evacuation Centre.

AHS Incident Management Structure



Lessons Learned

- Heightened the awareness of need for a corporate BCM / DR framework and methodology
 - displaced staff were relocated/alternate working arrangements
 - back up sites / destinations
- Business recovery / resumption planning must start at the commencement of the event
- More Staff training and exercises are required
- Financial tracking and reporting system communicated and implemented early; requires refinement

Lessons Learned

- Greater redundancy required in AHS IMS
- Expand training for AHS Staff assigned to Municipal EOC
- Re-invest in Evacuation Center planning / resource support for Evacuation / Reception Centers
- Clarification of linkages with NGOs

Flood related facts

- 1354 members of staff utilized EFAP services in Jul 2013 compared with 751 in the same month the previous year
- During the first two days of the flood, the AHS website received 900,000 page views each day (compared with a regular rate of 500,000 views per day)

Flood related facts (cont)

- AHS claimed \$12,866,957 in flood response operating costs in FY 2013/14.
- Approx \$75M approved for flood-related capital costs associated with staff relocation and health infrastructure repair
- \$180,636 worth of PPE (safety goggles, N95 respirators and gloves) were donated to the Red Cross from the Emergency / Disaster Management Stockpile

Flood related facts (cont)

- 54 debriefing sessions involving a wide range of staff and physicians from administrative, technical, clinical and allied health specializations were held throughout the organization
- Survey of AHS Staff deployed to Community Evacuation Centers was completed
- 153 Actions for Consideration (recommendations) were identified

Reminders

- Things happen fast; get big fast
- Facilities can be isolated
- Heavy equipment may not be available because it is saving lives
- People on the sites work miracles, there are so many heroes you can't count them all
- Prepare to be self-sufficient with local contingencies for three days. (Personal Disaster Preparedness Guide)

Reminders

- Communication can be difficult; establish communication mechanisms early in the response; have contingency plans.
- Establish single point of command early in the response – delegate wisely.
- Municipal EOC is an important link in the success of the response.
- Don't hesitate to ask for help.
- Be calm and be flexible – keep good notes
- AHS staff, physicians and the community are key to response and recovery.

Thank you!

Cheryl Bourassa
Executive Director
Emergency / Disaster Management
Alberta Health Services
10301 Southport Lane
Calgary, AB
T2W 1S7

Ph: 403-943-1274

Mobile: 403-613-7308

Email: Cheryl.Bourassa@albertahealthservices.ca