Disaster Medicine Education

- **Canada:**
  - < 15% of Canadian trained MD’s - DM education *(Dodd, 2010)*
  - Formal DM education does not exist in Canada
    - Less since 9-11 *(Cummings et al., 2005, CJEM)*

- **Canada: DM = Public health**
  - Public health education also lacking in medical schools *(Johnson et al., 2008; Acad. Med.)*

- **Perhaps not surprising that DM does not exist in Canada**
Outside Canada: HC and DM (Emer Prep)

- **AMA (2006)** - all medical schools / residencies to provide formal disaster education

- **US, Australia, UK, Europe** - Disaster medicine = formal specialty

- **US Govt** - >$4 billion in hospital emergency preparedness last 6 yrs
  - GAO (2010)

- **US** - Disaster exercises (not just plans) - required for hospital accreditation
  - JCAHO

- **Canada ??**
Are we prepared?

- 1153 am Friday
- Major train derailment outskirts of town
- Several tankers rupture
  - Toluene
  - Propane
  - Caustic soda
  - Chlorine
- Explosion, fire
- Hospital is told to “standby, prepare for unknown #’s casualties”
What do you do?

A. Quickly sign out to your colleague
   (Hoping he/she has not heard the news)

B. Rush to the scene to get the first video on YouTube

C. Call for someone to initiate the hospital disaster plan – there must be one

D. Initiate the disaster plan you have rehearsed and are familiar with
Start with knowing the risks in your area

- **Interface Fires**
  - 1998 Salmon Arm Fire
  - 2003 Kelowna Firestorm
  - 2003 Kamloops / Barriere
  - 2009 Lillooet

- **Flooding**
- **Avalanches**
- **MVA’s**
- **Chemical spills / Industrial**
  - railway
Next steps...

- **Health administrators** - understand the importance of emergency preparedness?
  - Safety of your community / your family
  - Implications / concerns with providing clinical care
  - Societal expectation of expertise

- **Collaborate with community preparedness groups**
  - Fire, ambulance; community & provincial emergency programs
  - They all have plans – part of which is “you”

- **FL-HCP’s have an invaluable pro-active contribution**
  - Valuable in “operationalizing” strategic level plans

- **Create / support clinical champions**
Why we should become more involved – lessons from our recent past
H1N1

- Retrospectively minor “nuisance”
  - Fatality index <0.1%
- Opportunity

Lesson:
- Our HC system has little additional surge capacity
  - Even a mild outbreak clogged our ED’s and ICU’s
  - “Our system” – we must have input
  - Public health – valuable – but NOT clinicians

Underestimated the demand placed upon HC system
  - Did not replace existing demand – added to
– Need for Planners (PH) and Responders (FL-HCP’s) to better collaborate – not be separate

• Huge gap between PH and clinical medicine

– Strategic planning ≠ operational planning

• just assumed HC would be available and would manage
• Resources (equipment, supplies, personnel)
• In all aspects (i.e. vaccination, patient care)
• Need for physician – patient contact (worried-well)
Revelstoke / Salmon Arm / Lillooet / Kelowna

- Risk of disaster / emergency is in our back yards
- The potential is always there

**Lesson:**
- Know your local hazards / risks
- Incorporate those into your plans
  - Forest fire, avalanche, Rail / industrial hazards...
Hurricane Katrina / Haiti

- Response is one thing
- Recovery is another

- Much of DM is not all trauma
  - Huge component = exacerbation of chronic disease / mental health
  - Large role for Primary Care
  - What happens after the “response is over”

- Lesson:
  - HCP’s must do more than ‘reactively respond”
    - Recovery often more important
    - Recovery = planning, mitigation for next
9-11 / Revelstoke avalanche

- Hospital ED’s are “First Responders”
  - *Sick / injured patients arrive directly / suddenly*

**Lesson:**
- HCP’s / Hospitals must collaborate / integrate with other FR’s
  - *Not just health based*
  - *But all community Emerg. Prep. resources*
All emergencies

- Lesson:
  - Disasters will not wait for an appropriate time
  - They will add to existing demand – not replace
  - Emergency preparedness = insurance
    - May cost to plan – will cost a lot more not to plan
Summary - 3 Things Required - Disaster / Emergency Preparedness

1. **Know the Hazards and Vulnerabilities of your area**
   
   *Health impacts*

2. **Have a Emergency / Disaster Plan - Be involved**
   
   *Operational level – not just strategic*

3. **Exercises / Training**
   
   *Need to have regular exercises – what works, what doesn’t*

“Unfortunately there are not enough wars and we must resort to exercises to prepare the men”

General George Patton
What next?

- Get involved
- Do you have an emergency plan at home?
  - How safe is your family?
  - More prepared at home – more able to effectively function at work
- How prepared are your patients?
  - Health preparedness = community preparedness
  - = preventative health
  - Resource to you community (principle CCFP)
Are you aware of your hospital’s plan?
- Yes - Up to date
- No – get one
- And then test the plan

Disaster Medicine
- Develop / deliver education (all levels)
- Build those bridges between CM / PH / DEM
• All emergencies / disasters will involve HCP’s, hospitals...

• Many will be affected / involved in some aspect of healthcare
  – Hospitals
  – Physicians / HCP’s

• And so will many of your families, friends...
Preparedness increases chances of effective response

“Failing to plan is just planning to fail”
Why Care?
Because history always repeats itself
Thank you