Occupation Health “Issues” in the Canadian Armed Forces

Presentation to
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PRESENTATION OUTLINE

• Mandate of Canadian Forces Health Services
• Differences From Civilian Practice
• Current Structure(s)
• Key Components – Surgeon General Organization
• Directorate Force Health Protection
• Key Challenges
CANADIAN FORCES HEALTH CARE MANDATE

To provide the health care support necessary to sustain a multi-purpose, deployable and combat capable force, across the full spectrum of military scenarios.
DIFFERENCES FROM CIVILIAN PRACTICE

- Unlike civilian physicians MOs work for the CF under a hierarchical structure. Company Doc vs. Patient advocate

- Unlike civilian employers Commanding Officers have the authority to order soldiers into harm’s way. (Unlimited Liability) and Code of Service Discipline (No right to refuse) (National Defence Act)

- The CF Health Services is required to assist in recruiting, providing periodic evaluations, treating, identifying medical employment limitations (MELs) that may keep soldiers, sailors and airmen and women from fulfilling their duties and therefore may affect mission success.

- All members of the CF must be capable of meeting Universality of Service (they must all be capable of performing soldier skills.)
Current Structure
Key Components  Surg Gen Org
CMOH/Chief of Occ Health Svc = Surg Gen

- PHAC/Ministry of Health (Population Health) = DFHP (+ D HS Ops)
- Regional MOH/Chief of Occ Health Service = JTF Surg
- Municipal MOH/Chief Occ Health = B/WSurg
- Municipal Public Health Unit/Industry Occ Health Service = PMed Techs, Community Health NO, Immunization staff, MO/NO/PA, CFPSA HP staff, BGSO
- Chief Public Health Inspector = Sr PMed Tech at all levels
Force Health Protection – Regional Elements

HSG Comd
  Med adviser
  HSG MWO PMed Tech
  DHHAT Suffield/Toronto

Area/Fmn/JTF Comd
  JTF Surg
    JTF PMed Tech
    Regional Preventive Svcs Coord (to be established)
  JTF Engr, GSO, Env O, Rad SO
Force Health Protection – Base/Wing Unit Elements

CF H Svcs Centre CO/Clinic Mgr
B/WSurg or Unit SMO
Base Surgeon/Senior Medical Officer- regional/local MOH
  PMed Techs – industrial hygiene/occupational health & safety technologist, public health inspector, travel medicine advisor, Environmental Health Officer, pest management
MOs – pre-employment and periodic health exams
Clinic Infection Control Coordinator, Immunization Nurse, Community Health Nurse, future Regional Clinical Preventive Services Coordinators
CFPSA Health Promotion staff - health promotion program delivery
COMPARATIVE CIVILIAN CONTEXT

DFHP fulfills all or part of the following functions for the CF:
- Provincial/Federal Public Health Service
- Industrial Occupational Health Service
- Ministry of Labour (workplace hazard inspection and investigation)
- Ministry of Environment (pest management, env hazard assessment)
- Academia- General/mil Public/Occupational Health training
- CFIA – foreign food safety assessment

Other elements of CFHS, the CF, or civilian sources implement or deliver parts of CF and DFHP preventive health policy and program.
Naylor Report 2003 - Public health spending is 1.8-2.5% of total health expenditures; should be 5%.

DFHP Budget ~ $8M, or about 1.8% of CF health budget (~half for Health Promotion program local delivery by CFPSA), but:
- doesn’t account for costs of most local program delivery at Base/Unit level or on deployed operations
- does account for many services that are not provided by civilian public health authorities
UNIQUE CF REQUIREMENT

-Deliver common program to a universally mobile population at bases and mobile operational platforms across Canada and the world

-Assess and protect against extensive life-threatening public and environmental health hazards beyond scope of provincial public health, environmental health, and environment authorities

-Assess and protect against unique occupational hazards beyond scope of domestic industrial occupational health services

-Need to transplant Canadian-standard occupational, environmental, public health infrastructure and maintain force health protection in environments without background Western standard controls, hygiene, sanitation, health surveillance, public health, etc.
Directorate Force Health Protection
4 Sections

Occupational and Environmental Health Section
Develop and provide guidance on specific policies and programs in non-communicable diseases and occupational illness and injury arising from exposure to environmental, physical, psychological, and chemical entities.

Communicable Disease Control Section
Develop policies for the prevention, control and management of communicable diseases and disease vectors on operational deployments and in garrison.
Directorate Force Health Protection

Epidemiology Section
Acquire and assess evidence essential for the production of valid and effective policies for the prevention and control of communicable and non-communicable diseases and injuries through application of epidemiological methods such as health surveillance and program evaluation

Health Promotion Section
To develop Health Promotion policies and generic, consistent, core programs in designated focused areas: stress management, addictions, positive lifestyles and injury prevention
Mortality

• Cancer - leading cause of death in CF
• Related to aging population and preventable risk factors (smoking, diet, alcohol)
• Aiming to improve preventive clinical care
• Cardiovascular Disease mortality underestimated
• Injuries a major cause of mortality (will likely exceed cancer for 2006)
• Majority of (non-combat) deaths preventable

#1 Injuries – highest incidence, double the civilian rate, majority from sports and military training

#2 Mental Health - depression, alcoholism, Social phobia, PTSD

Need to enhance clinical injury surveillance system, and screening/treatment for depression and alcohol abuse

Prevalence of chronic conditions similar to Canadian Population – similar need to reduce risk factors and enhance preventive care

Morbidity Impact

HLIS 2004

- 442,932 sick leave days per year (7.3 sick leave days per member per year)
- Cost: 1800 person-years, $155 million per year
Personnal Health Practices

• Obesity increasing
• Physical activity decreasing
• Reduced intake of fruits and vegetables
• Alcohol – little change in drinking patterns since 2000
• Smoking rates declining as in the Canadian population, but CF environment may increase initiation of smoking

Risk factors affect morbidity, mortality, and deployability
Good primary prevention programs, but behaviours linked to societal culture; major improvement require non-medical policy and program changes
OPERATIONAL SUPPORT

• #1 op threat (non-hostile) = infectious disease, then MH, temperature, injury
  – Mass casualty potential
  – Hygiene, sanitation, prophylaxis, vaccination, vector control, repellants, insect discipline, engr measures

• long-term real or (mis)perceived threat = low level chemical/rad exposures
  – Longer term physical, mental, political, (mis)perceptual, confidence, retention consequences

• expect ongoing future deployments to regions w/ high infectious disease/environmental health threats
OPERATIONAL SUPPORT

• Rommel: poor attention to fd hygiene lost him a force equal to twice his average strength at El Alamein
• Vietnam: 400 DNBI (vs 100 BI) casualties/1000 soldiers
• Six-day war: 20,000 heat-related Egyptian deaths
• Falklands: 109 cold injuries of 777 casualties
• Soviet Afghanistan: 67% hospitalized for disease, 25% at any time
• US Gulf War hospitalizations: 27 DNBI: 1 Combat (Medevac 7:1)
• CF East Timor (Dili) 2000: 46% preventable Dengue fever
• UK Sierra Leone 2000: +++ preventable malaria
• US Liberia 2003: Malaria (+deaths) in 44% Marines ashore
• Wainwright 2005: 200 GI
• "History teaches us that we do not learn from history."
• Brigadier Martin Lewis, former UK Director of Army Health and Hygiene
OPERATIONAL SUPPORT- CF Record

- good by international standards, BUT some ongoing problems:
- Op DETERMINATION Anthrax vaccine: show stopper
- E. Timor: MND JE vaccination show-stopper, Dengue outbreak
- OP APOLLO & Kabul anthrax vaccine
- NBC Med CM briefings
- Kabul/Kandahar febrile illnesses
- Kandahar food-borne, Haiti permethrin…
  - Limited soldier compliance & comd enforcement
  - Late involvement of med staff in planning/recce
  - Competent med planning requires a Sr MO to be involved
KEY CHALLENGES
Personnel Shortages
Mental Health
Comparison Major Diagnostic Categories, Percentage SL Days, Surg Gen Database

Note: This is an indication of the number of SL days utilized versus the number of members suffering MH illness.
Percentage Sick Leave Within MH Diagnoses, 2005

- Depression: 33.8%
- Psychosis: 0.4%
- Anxiety: 0.5%
- Bipolar: 4.9%
- Adjustment D: 3.2%
- Eating D: 11.2%
- Addiction: 0.1%
- PTSD: 2.1%
- Misc: 7.8%
Metabolic Syndrome
Maintenance of Clinical Skills (MCSP)
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• Closure of Military hospitals resulted in loss of training environment and milieu for the maintenance of clinical competence of CF health care providers

• In-garrison care parallels the care provided in ambulatory care/family practitioners type clinics and does not ensure the maintenance of clinical skills required on deployment

• Patient population of In-garrison clinics not representative of population receiving care on deployments
Health Services Reserves
Canadian Forces Health Services Information System (CFHIS)
QUESTIONS?

Promote, Protect and Heal
Promouvoir, protéger et guérir