

Exposure Assessment in a Military Environment: Perspectives from the Field

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Disclaimer

- **I do not represent the Department of Defense**

Background and Overview

- **My background and experience:**
 - Former Army Force Health Protection Officer
 - Afghanistan 2008-2009
 - 127 locations with US forces
 - Was able to make it to over 100 locations
- **Several major challenges:**
 - Mixed threats
 - Security and weight concerns, not always in full gear
 - Data
 - Collection – limited staff and solutions
 - Databases
 - Post Deployment Health Reassessment (PDHRA)
- **Force Structure**
 - Preventive Medicine Detachment (Corps)
 - Division
 - Brigade Combat Team – Junior FHP
 - Special Forces Group

Waste Management = Burn Pits



Patterson, 2008

Burn Pits



Patterson, 2008

Burn Pits



Burn Pits

Patterson, 2008



Patterson, 2008

Toxic Mixtures



Emissions / Smoldering Fires



Daily Hazards: Dust, Diesel Particulates, Pesticides, Fuel, Disease, Food, Water, Explosives, Violence, etc.



Fuel Vapor Exposures

Patterson, 2009



Decisions



Summary: Perspectives from the Field

- Tough mission space
 - Not the US
 - Not an industrial setting
 - Many unknowns
 - Extended time periods
 - Mixtures
 - Personal decisions
 - Dose?
 - Limited personnel for collection with several missions
- Data challenges
 - Who was where when and for how long?
 - What to do with data if it is collected?
 - Security challenges

Questions?

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