

Medical Policy Formulation and Implementation in Commercial Aviation, Space and Training Considerations*

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*** Personal Views and Opinions**

Aviation, Space

- Drug and Alcohol Testing (aviation)
 - Stakeholders:
 - Government
 - Airlines
 - Airline employees
 - Public
 - Private – 3rd party providers
 - Policy makers: regulatory. Driven by new Federal regulations
 - Reaction to very public events of intoxication and perceived use of illegal substances

Aviation, Space

- Drug and Alcohol Testing (aviation)
 - Safety and Health Risks
 - Potential incapacitation of flight, cabin and ground crews; airport screeners
 - Potential risk to traveling public (aircraft or ground)
 - Safety as a substitute for health
 - Detection may lead to improved health of the crewmember, but safety was the primary concern

Aviation, Space

- Drug and Alcohol Testing (aviation)
 - Evidence based policy formulation
 - Risk of occurrence available in other industries but not in aviation
 - Experience based policy formulation
 - Commitment to industry to reduce testing rates based on experience
 - OTC medications a problem outside US

Aviation, Space

- Drug and Alcohol Testing (aviation)
 - Facilitators and obstacles
 - Deadlines for new regulations
 - Increased costs – screeners and training, lab costs, litigation
 - Evaluation
 - Required annual reports to FAA
 - Audits
 - Desired outcomes: deterrence
 - Beneficiaries: public

Aviation, Space

- Cholera epidemic

- Stakeholders:

- Government – CDC asked airlines to consider 1992
 - Airlines
 - Airline employees
 - Public
 - Private (minor) – 3rd party providers

- Policy makers: airlines (voluntary)

- Consideration of epidemic in South America

Aviation, Space

- Cholera epidemic
 - Safety and Health Risks
 - Potential inability to prevent illness
 - Potential inability to treat in-flight illness
 - Health and Safety
 - Solutions focused on health of passenger
 - Safety issues concerned training of crews, inspections of food providers in international locations

Aviation, Space

- Cholera epidemic
 - Evidence based policy formulation
 - Epidemiology reports from CDC
 - Actual in-flight experience shared by airlines
 - Experience based policy formulation
 - Training for all crews
 - Additions to in-flight safety manuals
 - On-board rehydration and clean-up kits

Aviation, Space

- Cholera epidemic
 - Facilitators and obstacles
 - CDC information to convince administration
 - No real obstacles – airline embraced policy
 - Evaluation
 - Followed CDC reports of epidemic
 - Desired outcomes: prevention and treatment
 - Beneficiaries: crew, airline (goodwill), public

Aviation, Space

- Change in medical standards
 - Stakeholders:
 - Government
 - Crew
 - Public (participants, safety)
 - Policy makers: program and management; OMB and administration if budget impacts

Aviation, Space

- Change in medical standards
 - Environmental and technological health and safety induced risks
 - Radiation
 - Fractional gravity
 - Safety and Health Risks
 - Duration
 - LEO versus deep space, planetary
 - Fractional gravity
 - Consumable, medical support

Aviation, Space

- Change in medical standards
 - Evidence based policy formulation
 - Ground-based population data (cardiovascular)
 - Space flight experience (bone loss)
 - Environmental risk estimations (radiation)
 - Experience based policy formulation
 - Difficult to measure – prevent future negative even from happening
 - Focus on incapacitation (cardiovascular), performance (vision, hearing)

Aviation, Space

- Change in medical standards
 - Facilitators and obstacles
 - Expert panels of clinicians, physiologists
 - Lack of in-flight data
 - Lack of correlation of research and flight data
 - Evaluation
 - Monitor crew health in-flight, post-slight
 - Follow LSAH
 - Desired outcomes: Prevention, enhanced performance, safety
 - Beneficiaries: crew, program, public