PROBLEM SOLVING, RISK AND STRATEGIC MANAGEMENT

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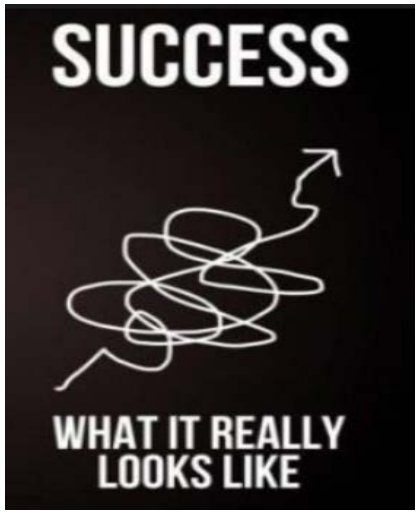
Aim

- Provide overview of Medical Discharge Analysis Project.
- Discussion of application of Systems Framework to Medical context.

Project Management

- The essence of Project Management is addressing failure and/or expectation:
  - Something has broken or fails to function.
  - Current configuration will not meet future requirement.
  - Providing solutions to work toward ‘Success’.



Risk and Systems Thinking

- **Success** is the achievement of an aim or objective.

- **Risk** is potential of gaining or losing something of value.
  - due to action or inaction,
  - foreseen or unpredictable circumstances.

- **Systems thinking** identifying problems requiring resolution,
  - prioritised by impact,
  - devising associated solutions to problems identified.

Medical Discharge Analysis

- Medical discharges peaked during 2013, reason unknown.
- Factors multi-factorial and complex to analyse.
- Consequences of Medical Discharges:
  - High cost to defence without capability delivery
    - Wages
    - Rehabilitation
    - Compensation
    - Higher enlistment targets
  - Psychosocial cost to individuals
    - Uncertainty future employment
    - Self-esteem
  - Lingering compensation liability to Defence

Medical Discharge Project

- Data
  - Multiple computer-based systems de-identified trainee data (from 2004).
  - Interviews of key personnel, anecdotal issues.
  - Previous study outcomes
    - Physical pre-conditioning
    - Previous medical discharge investigations

Medical Separation

- Discharge by category
- Definition of what constitutes medically unfit, associated policy by category
- Timecourse for recovery
- Local Doctor evaluation.
- Welfare board review
  - MDT review of high risk recruits
  - Command participation
- Continuity of training
  - Backsquad after 2-3 days missed training
  - Convalescence in home location in some circumstances

Data Analysis

- Recruit training analysed by training component and demographic:
  - Injury type – lower limb, strains and stress fractures, reversible pathologies.
  - Separations by gender, females proportionally higher.
  - Processing time increased prior to 2013.
  - High frequency of injury by date, found peaks of injury September and January, found to be attributed to re-injury of previously injured.
  - Age proportionality reflective of intake demographic

Data Analysis

- MOI - Physical Training
  - Most common activity attributed to discharge.
  - Causative lessons targeted and assessed.
  - Physical training program assessed and graduated.
- Injury by Platoon
  - Peak in two platoons
  - associated with group re-entry into training.
- Injury by Job Category
  - Proportional to intake demographic
- Height, weight, BMI
  - Above average height males for lower limb injuries

Previous Analysis

- Preparation time
  - No association found
- Previous ball sports
  - Insufficient data
- Cadet experience
  - All discharged did not have previous cadet experience
- Qualification level
  - No direct relationship established
- Initial fitness test results
  - Lower performance for beep test, increased propensity for discharge

Medical Systems Factors

- Recruiting Standards Changes
- Medical Discharge Categorisation policy changed
  - Categorisation policy change
    - Time component and prognosis consideration changed
- Lack of dedicated MO, dependent on locum pool.

Outcomes

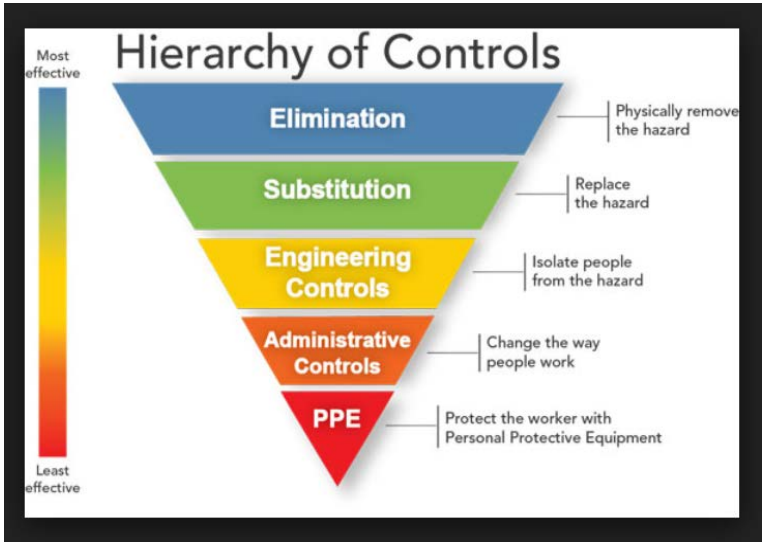
- Timing and assessment of discharges
  - standardised process
  - supported by MDT and Welfare Boards
- Pre-conditioning of at-risk co-hort
- Monitoring of PT Program and injury reporting
- Further research required:
  - Relaxation of medical entry standards
  - Above-average height male injuries

Six Sigma

- Continual stable and predictable process results.
- Processes have characteristics that can be defined, measured, analysed, improved, and controlled.
- Sustained improvement achieved by whole-of-organisation commitment.
- Achievement of measurable and quantifiable results.
- Decision making based on verifiable data and statistical methods, rather than assumptions and guesswork.
- An increased emphasis on strong and passionate management leadership and support.

Practical Application

- Problem definition, risk profile and quantification.
- Identify the desired endstate/objective.
- Stepwise approach to achieve the endstate.
- Hierarchy of controls to address risk.



Risk-based Thinking

- Identify and quantify the risk
  - Short term control to mitigate the risk in short-term.
  - Long term solution to eliminate the risk completely
  - Policy and documentation to ensure sustainability and corporate memory.
  - All problems and solutions are to be quantified. Data and statistics, processes and systems are important.

Conclusion

- Overview of systems thinking and problem solving in a Medical context.