

Executive Summary

Title: Navy Physical Training (PT) Mishap Analysis, CODE 63 Project #09-003

Bottom Line Up Front:

- The FY08 rate for PT mishaps was 38.98 per 100,000 persons per year. No significant change.
- Leading physical activity for both mishap severity classes of A and C was jogging/running.
- Several trends identified.
- Multiple generalized data descriptors and blank data fields impeded effective analysis.

Summary:

The initial focus of this study was to investigate if pre-existing conditions were a causal factor for PT/PRT mishaps. Due to the limited information that could be obtained, it could not be determined if pre-existing conditions were a causal factor.

However, the analysis of the data was able to uncover the following trends:

- Jogging/running was the leading physical activity being performed just prior or during the mishap for all severity of mishaps.
- The trend over a ten year period for PT mishaps broken down into age groups closely mirrored the Navy population except for mishaps involving individuals between the ages of 25 to 35 which peaked above the Navy population.
- Infarction was the leading injury diagnosis for PT mishaps involving fatalities. Jogging/Running was the leading activity being performed when the infarction occurred and the leading age group affected was between the ages of 25 and 35.
- Sprain ankle was the leading injury diagnosis and body part for Class C severity. Jogging/Running was the leading activity being performed when the sprain occurred and the leading age group affected was between the ages 25-35.

- Basketball was the leading group sport activity with sprain being the leading injury diagnosis and ankle the leading body part injured.
- Jogging/Running was the leading non-group sport and physical fitness test/assessment physical activity with sprain being the leading injury diagnosis for both and ankle the leading body part injured for the non-group sport and total body being affected for physical fitness test/assessment.
- Over a 3 year period the most PT/PRT mishaps occurred before 0900 and between 1400 and 1700. During the same period another trend emerged, the most mishaps were occurring on Monday and Wednesday. These trends were not unexpected and supported the notion that PT/PRT sessions are held during those hours and on those days.
- The leading reporting command for Class C mishaps over a 5 year period was Recruit Training Command, Great Lake, Illinois.
- Examining a ten year period, the average percentages of mishap categorized by mishaps severity and pay grade for enlisted personnel followed the same trend line as the average percentages of the Navy population except for E01, E06 and E07. The leading diagnoses for Class A and the Class C mishap types were again the same as above, infarction for Class A and sprain for Class C. Further analysis uncovered that the number mishap instances of infarctions involving an E06 was statistically higher than average of the other pay grades. There were no statistical differences from the averages of the other pay grades for E01 and E07.

While conducting this analysis, it became apparent several of the data fields from Web-Enabled Safety System (WESS) allowed generalized data inputs or allowed fields to be left blank. This affected analysis for leading activity, injury diagnosis, rank/grade and age. When conducting the analysis to determine the leading physical activity, there was a number of generalized data descriptors used such as "TRAINING, N.E.C" and "SPORT, N.E.C". In fact before refining the data, "Training, N.E.C" was listed as the leading activity. This was also happening for analysis for injury diagnosis. The age and rank/grade analysis proved to be difficult to conduct due to the WESS not containing the data for many mishaps especially for Class A mishaps.

Recommendations:

- This study was able to uncover numerous trends in an effort to bring to light possible areas of focus to improve safety. Recommend the same analysis be conducted for the Marine Corps.
- During this study, it proved to be difficult to perform trend analysis to due to the use of multiple generalized data descriptors in the drop down menus in WESS. Recommend a review of theses generalized data descriptors in an effort to eliminate or narrow down the number used or at a minimum, require further remark to provide clarification.
- In addition to the generalized data descriptors, a number of WESS data fields were left blank. Recommend mishaps be reviewed to ensure WESS data field need for analysis not be left blank.