



# NAVY AND MARINE CORPS PUBLIC HEALTH CENTER

ShipShape Group 3 Post-Program Evaluation  
(Classes attended December 2007- May 2008)

*Spring 2011*

## **Background**

All Navy personnel are required to participate in the semi-annual Physical Fitness Assessment (PFA) process, which includes a Physical Readiness Test (PRT) and a Body Composition Assessment (BCA). Members must meet the standards set forth in OPNAVINST 6110.1H, Physical Readiness Program, or be subject to administrative action.

Commanding officers may send members that fail to meet BCA standards to ShipShape, the BUMED-approved weight management program, as part of the Fitness Enhancement Program (FEP). While many weight loss programs achieve positive short-term weight loss results, almost all individuals that lose weight eventually regain most or all of it. Thus, this evaluation of the ShipShape program seeks to assess its long-term efficacy.

Since the fall of 2007, the Navy ShipShape program manager has provided the EpiData Center (EDC) at the Navy and Marine Corps Public Health Center (NMCPHC) with rosters of ShipShape participants that successfully complete the program. BCA results for these members are examined using Physical Readiness Information Management System (PRIMS) data available in conjunction with the PFA cycles that are held each spring and fall. Analysis is performed after three PFA tests are completed at one year, one and one half years, and two years following completion of the ShipShape program.

## **Methods**

A roster of ShipShape participants from Group 3 (participation December 2007-May 2008) was matched to Defense Manpower Data Center (DMDC) records to determine how many individuals remained on active duty throughout the two year post participation evaluation window. Only individuals who had an active duty record in each of the three PFA evaluation cycles were included in the final analysis.

ShipShape participants who remained on active duty throughout the two follow-up periods were matched on the nine-digit social security number (SSN) to PRIMS data to obtain PFA test information from three PFA cycles post-ShipShape completion. Participants listed on a roster without a full SSN were matched on the last four digits of their SSN, like-parts of the last name, and the first name.

Duplicate records following the matching of ShipShape participants to PRIMS data were removed from the analysis. A duplicate record was defined as a record that occurred during the same PFA

evaluation cycle. To determine which PFA record to keep in the analysis, the record for which the individual was a participant of the BCA was retained over other non-participation reasons. If duplicate records identify a medical waiver, pregnancy, or any other reason besides “participant”, then the pregnancy record, followed by the medical waiver record was retained for analysis. All other reasons for non-participation, such as Temporary Assigned Duty (TAD), leave, etc., were grouped into an “Other” category.

For individuals that acquire a score of “Excellent” or “Outstanding” on the PFA, with no single event scored below “Good”, Commanding Officers are authorized to waive the BCA criteria up to the Department of Defense (DoD) maximum standard for body fat percentage (26% for males and 36% for females). This means that an individual may also be assigned a passing value of “True” for acceptable body fat, even if that individual exceeds Navy allowable body fat percentage standards, but meets the BCA waiver criteria specified. Due to this limitation, participants identified as receiving a BCA waiver were identified and excluded from the BCA Passed row presented in table 1.

## **Results**

Table 1 shows the results of the analysis for ShipShape participants in Group 3 (classes ending December 2007- May 2008). There were a total of 194 ShipShape participants in Group three reported from 13 Medical Treatment Facilities (MTFs). Of these individuals, 119 were identified in DMDC as being on active duty in the last PFA evaluation cycle (spring 2010).

Throughout the three PFA cycles, a total of 67 unique individuals were evaluated for BCA. For the spring 2009 PFA cycle, 83.8% (67/119) of the initial ShipShape participants were identified in the PRIMIS database, followed by 77.6% (52/119) for the fall 2009 cycle, and 82.1% (55/119) for the spring 2010 cycle.

Individuals who participated in the BCA passed the weight for height standards 15.7% (spring 2009), 14.4% (fall 2009), and 15.2% (spring 2010) of the time. Furthermore, individuals that did not pass the weight for height standards and who required body fat measurement, were within body fat percentage standards 86.1%, 83.3%, and 76.9% of the time for spring 2009, fall 2009, and spring 2010, respectively (excluding those individuals who received a BCA waiver). Thus, the percentage of ShipShape graduates who passed the overall BCA portion of the PFA, as determined by either weight for height standards or body fat percentage measurement, was 80.0% (spring 2009), 86.4% (fall 2009), and 80.4% (spring 2010), excluding those individuals who passed due to a BCA waiver. At two-year follow up, the rate of “BCA Passed” was 80.4%.

Table 1: ShipShape and PRIMS matching results for Group 3 (class ending December 2007- May 2008).

<b>MTF (Parent Location)</b>	<b># of students from ShipShape Registry (% out of student total)</b>	<b>PFA CYCLE: SPRING 2009 # of students identified in PRIMS</b>	<b>PFA CYCLE: FALL 2009 # of students identified in PRIMS</b>	<b>PFA CYCLE: Spring 2010 # of students identified in PRIMS</b>	
Bethesda	7 (10.5%)	5	7	6	
Camp Lejeune	1 (1.5%)	1	1	1	
Charleston	6 (9.0%)	6	5	3	
Corpus Christi	1 (1.5%)	1	1	1	
Great Lakes	2 (3.0%)	2	2	2	
Hawaii	12 (17.9%)	6	8	9	
Jacksonville	5 (7.5%)	3	2	4	
New England	13 (19.4%)	12	10	11	
Oak Harbor	5 (7.5%)	4	3	4	
Portsmouth	6 (9.0%)	6	6	6	
Rota	1 (1.5%)	0	1	1	
San Diego	8 (11.9%)	6	6	7	
<b>Student Total</b>	<b>67</b>	<b>52</b>	<b>52</b>	<b>55</b>	
<b>BCA Participant</b>	Yes	45 (86.5%)	44 (84.6%)	46 (16.4%)	
	No*	7 (13.5%)	8 (15.4%)	9 (16.4%)	
* Includes one of the following possible reasons: <10 weeks, DEP/OP, Med Waived, Pregnant, TAD, UA, Unknown					
<b>BCA Participant Results</b>	<b>Ht Wt ok</b>	<b>Spring 2009 (N=45)</b>	<b>Fall 2009 (N=44)</b>	<b>Spring 2010 (N=46)</b>	
	Yes	7 (15.7%)	8 (14.4%)	7 (15.2%)	
	No	38 (84.4%)	36 (81.8%)	39 (84.8%)	
	<b>Body Fat Ok</b>	<b>Spring 2009 (N=36*)</b>	<b>Fall 2009 (N=36)</b>	<b>Spring 2010 (N=39)</b>	
	Yes	31 (86.1%)	30 (83.3%)	30 (76.9%)	
	No	7 (13.9%)	6 (16.7%)	9 (23.1%)	
	*Excludes two individuals who exceeded allowable body fat percentage standards but were waived from the standard BCA criteria due to exceptional PRT performance. Approximately 3.4% of ShipShape participants (two individuals) who had to be measured for body fat percentage were waived from the BCA criteria. See discussion limitations.				
	<b>BCA Passed</b>	<b>Spring 2009 (N=45)</b>	<b>Fall 2009 (N=44)</b>	<b>Spring 2010 (N=46)</b>	
	Yes	36 (80.0%)	38 (86.4%)	37 (80.4%)	
	No	7 (15.6%)	6 (13.6%)	9 (19.6%)	
Waiver Received	2 (4.4%)	0	0		

## **Discussion**

Completeness of the ShipShape roster registry, which is maintained by the EDC, is contingent upon local program instructors sending rosters of members to NMCPHC that completed the program. Although there has been a gradual improvement in reporting over the PFA cycles, the number of participants in the ShipShape roster remained well below the number of individuals participating in ShipShape programs. Furthermore, some rosters for Group 3 that were sent to NMCPHC contained a person's name with only the last four digits of the SSN, making accurate matching and identifying ShipShape participants in the PRIMS database more difficult.

Decreases or increases in BCA participation between cycles could be due to medical waiver, pregnancy, deployment, leave, or inability to locate or match an individual's PRIMS record for a particular PFA cycle. Out of the 194 individuals who were identified as Shipshape participants, only 119 (61.3%) could be identified as currently being active duty in spring 2010. Of these 119 individuals, only 67 (56.3%) were identified in the PRIMS database. The precise cause for this attrition is not yet fully understood.

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