



## NAVY AND MARINE CORPS PUBLIC HEALTH CENTER

ShipShape Group 4 Post-Program Evaluation  
(Classes attended June 2008- November 2008)

*Summer 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. This evaluation of the ShipShape program seeks to assess its long-term efficacy.

Since fall 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 active duty FEP participants that successfully completed the program. Their BCA results were examined using Physical Readiness Information Management System (PRIMS) data available after PFA cycles conducted each spring and fall. Analysis was performed after three PFA tests were completed at one year, one and one half years, and two years following completion of the ShipShape program.

### **Methods**

A roster of ShipShape FEP participants from Group 4 (participation June 2008- November 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 three 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 in which an individual is a participant of the BCA is 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 is retained for analysis. All other reasons for non-participation, such as Temporary Assigned Duty (TAD), leave, etc., are 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 an individual may be assigned a passing value of “True” for acceptable body fat, even if the 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 4 (classes ending June 2008- November 2008). There were a total of 233 ShipShape participants in Group 4 reported from 16 Medical Treatment Facilities (MTFs). Of these individuals, 139 were identified in DMDC as being on active duty through the last PFA evaluation cycle (fall 2010).

Throughout the three PFA cycles, a total of 92 unique individuals were evaluated for BCA. For the fall 2009 PFA cycle, 50% (46/92) of the initial ShipShape participants were identified in the PRIMIS database, followed by 87.0% (80/92) for the spring 2010 cycle, and 82.6% (76/92) for the fall 2010 cycle.

Individuals who participated in the BCA passed the weight for height standards 18.6% (fall 2009), 24.0% (spring 2010), and 23.5% (fall 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 85.7%, 70.2%, and 75.9% of the time for fall 2009, spring 2010, and fall 2010, respectively (no individuals in this group 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 88.4% (fall 2009), 77.3% (spring 2010), and 82.4% (fall 2010). At two-year follow up, the rate of “BCA Passed” was 82.4%.

Table 1: ShipShape and PRIMS matching results for Group 4 (class ending June 2008- November 2008).

PFA Cycle								
			Fall 2009		Spring 2010		Fall 2010	
MTF (Parent Location)	# of students from ShipShape Registry	% out of student total	# of students identified in PRIMS	% of Parent MTF	# of students identified in PRIMS	% of Parent MTF	# of students identified in PRIMS	% of Parent MTF
	Bethesda	18	19.6%	12	66.7%	15	83.3%	17
Bremerton	3	3.3%	3	100.0%	3	100.0%	3	100.0%
Camp Lejeune	6	6.5%	2	33.3%	6	100.0%	3	50.0%
Charleston	2	2.2%	2	100.0%	6	300.0%	3	150.0%
Great Lakes	4	4.4%	2	50.0%	3	75.0%	4	100.0%
Hawaii	6	6.6%	4	66.7%	4	66.7%	4	66.7%
Jacksonville	2	2.2%	2	100.0%	1	50.0%	2	100.0%
Naples	5	5.4%	3	60.0%	4	80.0%	5	100.0%
New England	25	27.2%	5	20.0%	24	96.0%	19	76.0%
Oak Harbor	2	2.2%	1	50.0%	2	100.0%	2	100.0%
Portsmouth	3	3.3%	2	66.7%	3	100.0%	2	66.7%
Rota	7	7.6%	4	57.1%	4	57.1%	6	85.7%
San Diego	9	9.8%	5	55.6%	9	100.0%	8	88.9%
<b>Student Total</b>	92		46	50.0%	80	87.0%	76	82.6%
<b>BCA Participant</b>	Yes		43 (93.5%)		75 (93.8%)		68 (89.5%)	
	No*		3 (6.5%)		5 (6.3%)		8 (10.5%)	
	* 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>Fall 2009 (N= 43)</b>		<b>Spring 2010 (N= 75)</b>		<b>Fall 2010 (N= 68)</b>	
	Yes		8 (18.6%)		18 (24.0%)		16 (23.5%)	
	No		35 (81.4%)		57 (76.0%)		52 (76.5%)	
	<b>Body Fat Ok</b>		<b>Fall 2009 (N= 35)</b>		<b>Spring 2010 (N= 57)</b>		<b>Fall 2010 (N=52)</b>	
	Yes		30 (85.7%)		40 (70.2%)		40 (75.9%)	
	No		5 (14.3%)		17 (29.8%)		12 (23.1%)	
	<b>BCA Passed</b>		<b>Fall 2009 (N= 43)</b>		<b>Spring 2010 (N= 75)</b>		<b>Fall 2010 (N= 68)</b>	
	Yes		38 (88.4%)		58 (77.3%)		56 (82.4%)	
No		5 (11.6%)		17 (22.7%)		12 (17.7%)		

### **Discussion and Limitations**

Out of the 233 individuals who were identified as Shipshape participants, only 139 (59.7%) could be identified as being active duty in fall 2010. Of these 139 individuals, only 92 (66.2%) were identified in the PRIMS database. The precise cause for this attrition is not yet fully understood.

Completeness of the ShipShape roster registry, which is maintained by the EDC, is contingent upon local program instructors sending rosters of members that complete the program to NMCPHC. Although there has been a gradual improvement in reporting over the PFA cycles, the number of participant rosters for ShipShape remained well below the number of individuals actually participating in ShipShape programs. Furthermore, some rosters for Group 4 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.

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