Are Navy Weight Management Programs Ensuring Sailor Physical Readiness? An Analysis at Naval Medical Center San Diego

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ABSTRACT Introduction: The obesity epidemic in the USA includes active duty service members in the military and effects physical readiness. At the Naval Medical Center San Diego command, the Health & Wellness Department is charged with administering the Weight Management Programs (WMP) for sailors in the San Diego area to ensure military physical readiness requirements. The optimal allocation of personnel and resources to manage these programs is paramount for mission success. We analyzed the cost and effectiveness of the WMPs for the active duty population stationed at Naval Medical Center San Diego (NMCSD) with the intent of offering potential recommendations for program optimization. Methods: As an approved quality improvement program, the cost and effectiveness of the WMP, namely Fitness Enhancement Program (FEP) and ShipShape (SS), for the active duty population stationed at NMCSD were analyzed from 2013 to 2014 by utilizing various official sources. Data analysis included reviewing historical data for trends and developing a budgetary analysis to include Direct Labor Hour rates and opportunity costs. Interviews were conducted with key staff and participants in the WMPs to determine essential aspects and potential beneficial changes to the programs. Overall results were evaluated to identify potential opportunities for program expansion and improvement. Results: Data analysis revealed that the FEP is producing a 78% success rate, with approximately 30% of the enrolled personnel actively participating. Concurrently, the SS program at NMCSD is producing a 71% success rate with 90% course completion rate. This success rate is significantly higher than the national SS average of 34%. Furthermore, our cost analysis revealed that the SS program a significantly higher return on investment. Interviews conducted of key staff and participants yielded several commonalities regarding key factors involved with WMPs success or needed improvements. Conclusions: To improve the WMPs at NMCSD, the findings in this report support the following recommendations: (1) maximize the SS program, (2) increase utilization of FEP, and (3) increase the participation and training of Assistant Command Fitness Leaders. WMPs navy-wide may benefit from incorporating similar program improvements to increase physical readiness of service members and, therefore, support command mission success.

INTRODUCTION

The prevalence of obesity in the USA has increased steadily from 15% to 30% of the adult population, over the last few decades, giving cause to a rising epidemic.\(^1\),\(^2\) The morbidity cost (lost productivity) associated with obesity is also increasing steadily, while the functional capability is decreasing.\(^3\) In 2010, a report by Mission Readiness: Military Leaders for Kids, an organization of retired senior military leaders, notified the U.S. Congress that at least 9 million young adults between the ages of 17 and 24 yr are too obese to serve in the military. That equates to 27% of all young adults in the U.S. obesity rates among children and young adults have increased so dramatically, that they threaten not only the overall health of America, but the future strength of our military.\(^4\),\(^5\)

Active duty (AD) sailors are required to maintain a level of physical fitness to support overall mission readiness. The Chief of Naval Operations defines the Physical Readiness Program in OPNAV INSTRUCTION 6110.1J including program requirements, responsibilities of compliance, and establishes minimum standards of physical fitness.\(^6\) The Navy assesses personnel physical fitness semi-annually with a physical fitness assessment (PFA) that consists of the following: (1) medical screening – annual health assessment and risk factor questions, (2) body composition assessment (BCA) – height, weight and, as needed, circumference measurements, and a (3) physical readiness test (PRT) – a series of physical events that assess aerobic fitness, muscular strength, and endurance. Meeting minimum physical fitness standards is a condition of continued naval service. Service members failing to meet PFA standards three times in the most recent 4-yr period shall be processed for administrative separation (ADSEP) from the Navy.\(^7\)

The Navy advocates a holistic approach to overall wellness via exercise, nutrition, weight control, and wellness education. The Navy Operational Fitness and Fueling System (NOFFS)\(^8\) project provides the Navy with the “best in class”...

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physical fitness and nutrition information for sailors, allowing the Navy to maintain peak physical readiness, which is a top priority of the 21st Century Sailor and Marine initiative (CNIC, 2015). Despite these initiatives, sailors suffer from obesity and BCA failures and, therefore, the Navy provides weight management programs (WMP) to aid sailors in maintaining physical readiness. The Fitness Enhancement Program (FEP) is a mandatory, traditional, command-wide monitored program designed to improve fitness and nutrition for any member that fails to meet PFA standards. The ShipShape (SS) Program is a voluntary Navy weight management program developed based on modern fitness analysis as an alternate WMP to FEP and designed to assist service members with the selection and the implementation of more advantageous life choices. The eight-session program focuses on preparing participants for this change by utilizing three essential components for weight loss: mindset, nutrition, and physical activity. Service members who fail PFA standards are required to join one of these two WMP program, however the SS program is additionally available to AD and reservists who are within physical standards.

A study, performed at Naval Medical Center San Diego (NMCSD) in 2008, showed at least 53% of the AD staff members (1,755 of 3,306) were either overweight or obese, based on body mass index (BMI) measurement. Those personnel considered to be obese (36.7%) or overweight (43.12%), by that measurement, represented a significant percentage of total PRT failures (79.82%), as compared with those classified by any other BMI category. BMI results proved to be a salient factor when predicting PRT failure within NMCSD.

At the NMCSD command, the Health & Wellness Department is charged with administering the WMP for sailors in the San Diego area to ensure military physical readiness requirements. The two OPNAV directed WMPs programs are the FEP and SS. Ensuring that these programs provide physical readiness opportunities to and the optimal allocation of resources for service members is paramount for mission success. We analyzed the cost and effectiveness of the WMPs for the AD population stationed at NMCSD with the intent of offering potential recommendations for program optimization at that command and, potentially, generalized for other programs navy-wide.

**MATERIAL AND METHODS**

As an approved quality improvement program, the cost and effectiveness of the WMP, namely FEP and SS, for the AD population stationed at NMCSD were analyzed with a combination of quantitative and qualitative analysis by collecting program data and conducting interviews, respectfully. The scope of this project was limited to AD sailors stationed at NMCSD during years 2013 and 2014, which covered four Navy PFA cycles. To provide perspective, interviews were conducted with key staff and participants in the WMPs programs to determine essential aspects and potential beneficial changes to the programs. Overall results were evaluated to identify potential opportunities for program expansion and improvement as follows:

**Quantitative Data Collection**

Data collection and analysis included reviewing historical data for trends and developing a budgetary analysis to include direct labor hour rates and opportunity costs with the following objectives:

1. Determine the magnitude of BCA/PRT failures on AD readiness at NMCSD by calculating opportunity/productivity costs, the rate of ADSEP and a comparison to year of 2005 cycle 1.
2. Calculate the effectiveness of FEP and SS, a comparison was performed of cycle 1 to cycle 2 of the PRT in 2014 by incorporating the percentage of BCA/PRT failures that attend the compliance rate with the program and the success of program based on passing BCA/PRT rates.
3. Establish recommendations for optimal allocation of resources to support WMPs to maximize AD physical fitness readiness at the command.

The de-identified historical data and metrics were collected from the following appropriate sources:

1. NMCSD Legal Services Office provided information regarding ADSEP per year for BCA failures yearly from NMCSD during years 2008–2014.
2. NMCSD HWD (a) Command fitness using Physical Readiness Information Management System (PRIMS) and (b) SS program provided information regarding the success of FEP and SS, respectfully, along with the manpower required to maintain these WMPs.
3. Navy and Marine Corps Public Health Center provided statistics regarding the average navy-wide success rate of SS programs.
4. Office of the Assistant Secretary of the Navy (Financial Management and Comptroller), Financial Management and Budget FY15 guidance regarding Military Equivalency rates, standard General Schedule labor rates, and stated contractor support costs, were applied to analyze personnel costs for maintaining the WMPs.
5. Historical Comparison: In 2008, a study performed at NMCSD by Gantt et al. analyzed the prevalence of overweight and obesity of AD staff members in CY 2005 and these data were utilized as a comparison to the quality improvement project findings.

**Qualitative data collection**

Staff interviews were conducted with six key staff from NMCSD who are involved with the management and execution of the command FEP and SS programs. Interviewees, for command FEP, included the previous FEP manager and
the command fitness Lead Petty Officer. The personnel interviewed for the SS program included the program manager, fitness trainer, preventive health physician, and clinical social worker. These interviews were conducted in order to garner insight as to how the staff viewed the program’s overall effectiveness, and identify any recommended improvements. The full text of the interview questions can be found in Table I.

Participant interviews were planned with three successful and three unsuccessful participants, for both WMPs. Interviewees were selected by their respective WMP staff. Successful participation criteria were defined as a loss of at least 3% of body adiposity while in FEP or SS, along with passing the next regular Navy PFA cycle. Unsuccessful participation was defined as less than 3% reduction in body adiposity, along with a failing grade on the next regular PFA cycle. The full text of the interview questions can be found in Table II.

### RESULTS

#### Participant Cost Analysis

The rate of sailors failing the PFA has remained consistently around 4% with the majority of failures resulting from non-compliance with BCA standards. BCA results were examined from 2013 to 2014 at NMCSD, encompassing Navy PFA cycles 13–1 through 14–2 as shown in Figure 1. NMCSD’s ADSEP data for PFA failures were analyzed from 2008 to 2014, with results that showed an average of 11 sailors were separated due to a PFA failure at great cost to the Navy (Fig. 2). In 2014, the 14 sailors separated cost over 1 million dollars.

1. **Fitness Enhancement Program**

   To determine the FEP success rate, specific participants who failed either the BCA or PRT portion of the first PFA cycle of 2013 were tracked for two consecutive cycles. Success was defined as a sailor passing the next regularly scheduled PFA, following a failure. From the AD population at NMCSD, 36 personnel who failed the 13-1 PFA were tracked over the next 3 cycles. As shown in Figure 3, of the 36 personnel tracked, 28 passed the next PFA cycle, giving the FEP program a 78% success rate. Notably, only 47% (or 17 participants) of FEP participants passed the next 3 PFA cycles. Similar data over multiple cycles for participants in SS were unavailable for a comparison of the long-term success rates.

<table>
<thead>
<tr>
<th>TABLE I. Staff interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Please describe how your program is resourced, and what activities are offered to participants?</td>
</tr>
<tr>
<td>b. How many staff are used in running the program? How many are used to interact with participants? What are their specialties?</td>
</tr>
<tr>
<td>c. Why is your weight management program (WMP) successful?</td>
</tr>
<tr>
<td>d. Why is your WMP not successful?</td>
</tr>
<tr>
<td>e. If money was no issue, what are the three resources you would acquire or increase to help improve your program?</td>
</tr>
<tr>
<td>f. Is there any resource you would eliminate?</td>
</tr>
<tr>
<td>g. What would you not change about the WMP?</td>
</tr>
<tr>
<td>h. If you needed a WMP, which program would you choose and why?</td>
</tr>
<tr>
<td>i. Any additional comments or suggestions not covered?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE II. Participant interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Participants – successful</td>
</tr>
<tr>
<td>a. How did you enroll in the weight management program (WMP)?</td>
</tr>
<tr>
<td>b. Is this your first WMP? If not, in what other programs have you participated?</td>
</tr>
<tr>
<td>c. Why did you participate in this WMP vs. other WMPs?</td>
</tr>
<tr>
<td>d. What were the most important factors in your successful weight loss?</td>
</tr>
<tr>
<td>e. What in the program was least effective for you?</td>
</tr>
<tr>
<td>f. What changes would you suggest to make the course more effective?</td>
</tr>
<tr>
<td>g. Any additional comments or suggestions not covered?</td>
</tr>
<tr>
<td>2. Participants - unsuccessful</td>
</tr>
<tr>
<td>a. How did you enroll in the weight management program (WMP)?</td>
</tr>
<tr>
<td>b. Is this your first WMP? If not, in what other programs have you participated?</td>
</tr>
<tr>
<td>c. Why did you participate in this WMP vs. other WMPs?</td>
</tr>
<tr>
<td>d. What were significant obstacles (in or out of WMP) to your weight loss?</td>
</tr>
<tr>
<td>e. What in the program was least effective for you?</td>
</tr>
<tr>
<td>f. Was there anything in the program that was effective?</td>
</tr>
<tr>
<td>g. What changes would you suggest to make the course more effective?</td>
</tr>
<tr>
<td>h. Any additional comments or suggestions not covered?</td>
</tr>
</tbody>
</table>

2. **ShipShape Program**

SS participant data were examined for classes at NMCSD from 2013 through 2014. These data covered nine complete classes, which included follow-up data collected 6 mo after completion of the SS course. Data were also available for classes conducted in late 2014 that did not yet have a 6-mo follow-up. From the resources available, 155 sailors were enrolled in SS over the 2013–2014 timeframe, but only 115 of those participants had a complete data set for that period (Table III).

To make fair comparisons between the FEP and SS programs at NMCSD, success was defined as the participant within standards 6 mo after completing the course. This equates to the participant passing their next regular PFA. As shown in Figure 4, the success rate for SS was 54 out of 76 or 71%. Only participants who had complete follow-up data were included in this ratio. Navy-wide statistics for the SS program were only available for 2013 participants at the time of this study; Table IV depicts a summary of navy-wide SS data. Using the same criteria to calculate the success rate, the navy-wide SS program maintains a rate of 134 out of 211 participants, or 64%. NMCSD’s SS participants have a 90% course completion rate (104 out of 115) compared with navy-wide completion rate of just 57%.

**Program Cost Analysis**

Program costs for FEP and SS were built from a zero-based budget using personnel hours exclusive to each program. Sunk costs such as facilities, or overhead costs that serve both programs, were not included as they are assumed to be similar for both programs and excluded during a comparison study. Program costs per participant are based on the average number of participants in each program over the last two consecutive years, specifically 2013 and 2014. On average, 128 sailors at NMCSD fail the PFA per cycle which equates to 128 sailors enrolled in the FEP each cycle. However, average SS enrollment was 33 individuals per cycle with

**TABLE III.** ShipShape participant data at NMCSD – 2013–2014

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Enrolled</th>
<th>Completed</th>
<th>FEP Enrolled</th>
<th>FEP DNC</th>
<th>Within standards</th>
<th>Out of standards</th>
<th>No Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>13–1</td>
<td>25</td>
<td>25</td>
<td>23</td>
<td>0</td>
<td>13</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>13–2</td>
<td>25</td>
<td>19</td>
<td>22</td>
<td>3</td>
<td>10</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>14–1</td>
<td>53</td>
<td>49</td>
<td>47</td>
<td>3</td>
<td>27</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>14–2</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Totals</td>
<td>115</td>
<td>104</td>
<td>101</td>
<td>6</td>
<td>54</td>
<td>22</td>
<td>19</td>
</tr>
</tbody>
</table>

*Did not complete.

Note: FEP, Fitness Enhancement Program.
75% (25) of those participants from NMCSD. For the purposes of this cost analysis, an average 128 FEP participants, which included 25 sailors participating in SS and an average of 33 SS participants, was utilized.

Opportunity costs were calculated by multiplying the time spent by a sailor participating in program activities (including travel and hygiene), the average salary (E-4), and the average total number of participants per cycle. The time spent in these programs is time not spent at their primary job. The requirements set by OPNAV require all PFA failures to participate in activities 3 times per week for 24 wk. Because the SS program is only 8 wk long and did not satisfy all the requirements, hours for these participants crossed both programs. As a result, FEP hours were calculated in two tiers. The first for sailors who participated in just the FEP and second for sailors who participated in both programs. SS opportunity costs only included the time a sailor spent enrolled in the program attending SS led classes.

For sailors enrolled in FEP alone, time included 1 h 3 times a week for activities plus 0.5 h before and after each session to account for transition and hygiene for a total of 6 h/wk for 24 wk. Time for sailors who participated in both programs had FEP time reduced by 2 h a week for the 8 wk they attended SS, since SS meets the requirement of 1 FEP workout a week. SS time included 3 h once a week for activities plus 0.5 h before and after the session to account for transition and hygiene for a total of 4 h/wk for 8 wk.

Figure 5 shows a summary of the costs for FEP separated between 100% and 30% participation rates to provide additional insight. The 30% participation rate is based on data collected during interviews with FEP management. The following assumptions were made during calculations:

a. Used E-4 hourly rate to calculate opportunity cost.

b. FEP opportunity cost does not include time participant spent in 8 wk SS program.

### TABLE IV. Navy-wide ShipShape data – 2013

<table>
<thead>
<tr>
<th>Cycle</th>
<th>FEP Enrolled</th>
<th>Completed</th>
<th>FEP Enrolled</th>
<th>Did not complete</th>
<th>6-mo follow-up data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>690</td>
<td>390</td>
<td>393</td>
<td>96</td>
<td>Within standards</td>
</tr>
<tr>
<td>2013</td>
<td>334</td>
<td>77</td>
<td>86</td>
<td></td>
<td>Out of standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No tracking</td>
</tr>
</tbody>
</table>

Note: FEP, Fitness Enhancement Program.

**FIGURE 5.** Summary costs for FEP per 24-wk session.
c. Added 0.5 h to beginning and ending of each session in FEP and SS to calculate total sailor participation time.
d. ROI calculation is weighted based on program’s 78% success rate.

Figure 6 shows a summary of the costs for SS participants at a 90% completion rate. This completion rate was calculated using data provided by the program.

1. Program cost comparison.
a. Based on the current 30% participation rate estimated by FEP staff, SS has the lower average cost for NMCSD per participant at $989.48 compared to $1,165.41. Due to this low participation rate, NMCSD is losing approximately $815 for every non-compliant participant in FEP ($1165 – $349).
b. Taking into account opportunity costs, SS has the lowest cost to the Navy when compared with FEP at the current 30% participation rate or even the ideal 100% rate. Analysis of SS participants revealed an average of 75% of SS participants are stationed at NMCSD, this translated into 25 participants per cycle. The opportunity costs for FEP was credited (lowered) with the time NMCSD sailors spent in SS.

c. SS has the larger return on investment (ROI) per participant at $31.59 compared with both FEP participation rates due to the lower cost per participant.

Figure 7 demonstrates the opportunity cost to the Navy for a single sailor failing a PFA cycle. Data analysis revealed that the FEP program is producing a 78% success rate, with roughly 30% of the FEP enrolled personnel actively participating. The SS program at NMCSD is producing a 71% success rate with a 90% course completion rate and is significantly higher than the national SS average of 34% success rate. Furthermore, our cost analysis concluded that the SS program had a significantly higher ROI.

Interview Summary – Staff and Participants

Fitness Enhancement Program
Two FEP staff and three participants (two successful and one unsuccessful) were interviewed. These interviews resulted in several common themes regarding factors that contribute to a sailor’s successful or failure in a WMP and recommended improvements (Fig. 8).

ShipShape
Four SS staff and two participants (one successful and one unsuccessful) were interviewed. These interviews resulted in several common themes regarding factors that contribute to a sailor’s successful or failure in a WMP and recommended improvements (Fig. 9).

DISCUSSION

Multiple studies conducted by the Accession Medical Standards Analysis and Research Activity show the navy spends an average of $75,000 to recruit, screen, and train a sailor. Furthermore, in 2013 the Navy incurred an additional $183 M in recruiting and training costs for the 4,500 service members discharged because of failure to maintain physical standards, or $40,600 per separation. We included the initial $75 K investment as a baseline for the Navy’s gain when conducting ROI calculations for each program. We recognize that many sailors have advanced training and that the ROI for retaining them could potentially be much higher. However, this minimum amount allowed for a fair comparison of both programs.

Navy guidance requires all individuals who fail the PFA to actively participate in the FEP program. The current estimated 30% participation rate does not satisfy this requirement and the Navy incurs a cost. When a comparison was performed between 100% and 30% FEP participation rates, data showed the Navy incurred a penalty of $815 per non-compliant sailor per cycle. This cost highlights the capability of the SS program at NMCSD. If FEP maintained the required participation rate, SS would be more expensive for NMCSD in program costs per participant but would maintain a lower Navy cost overall. This disparity is due to the
significant difference in opportunity costs calculated between these WMPs.

Our results show that the SS program at NMCSD is performing well above the Navy average at assisting sailors with obtaining PFA standards. The SS programs are implemented and executed per navy-wide guidelines, but the respective staff are responsible for achieving the goals set within the Bureau of Medicine instruction. SS supports the

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**FIGURE 7.** Opportunity costs per individual sailor failing a PFA cycle. Calculations are based on the minimum navy-mandated FEP participation requirements. Since an individual sailor completes both programs in conjunction, the costs are distributed between them. The classroom time of SS does generate some additional opportunity costs above minimum navy mandates.

**FIGURE 8.** FEP staff and participant interview results. Factors highlighted in green represent similar observations between program staff and participants.
21st Century Sailor and Marine Initiative for readiness and continuum of service by promoting permanent lifestyle improvements for nutrition, physical fitness, and psychological fitness. Overall health and wellness need to be achieved through nutritional, mental, and physical training offered by the program managers to their members.

The NMCSD program is outperforming the navy average in another key area, course completion rate. Elucidating the difference in participants of the WMP may be beneficial. The FEP participants are required to participate per navy instruction, however, the ShipShape program is voluntary and requires that candidates take an intake questionnaire. The Weight Loss Readiness Test II covers topics of motivation, expectations, confidence and food habits. A staff member reviews this questionnaire with the candidate and determines whether SS is appropriate or if an alternate program, like Healthy Weigh, is more suitable.

This enrollment difference between WMPs may influence the significant difference in compliance rates between programs, which is much higher for SS. While the navy-wide SS has only 57% of participants completing the 8-wk course, NMCSD is achieving a 90% completion rate during the same 8-wk period. The cost analysis highlighted efficiencies in the SS program operation when compared to FEP, with $24 K less a year in program costs and $124 K less a year in opportunity costs. The opportunity costs of SS are significantly lower due to the difference in program duration. Opportunity costs for SS are only accumulated during the 8-wk sailors actively participate in the classes and meetings, as compared to the 6-mo sailors are required to actively participate in FEP activities. Due to the lower opportunity costs, SS delivers a higher ROI for every dollar spent.

While the PFA failure rate at NMCSD has been averaging 4% (128 personnel), it is outside the scope of this project to determine whether SS can effectively and repeatedly assist a specific population at gaining success. Long-term tracking (1+ yr) of SS participants’ performance in PFA would be needed to verify the long-term impacts of the SS program.

Analysis of the responses from WMP successful/unsuccessful participants, and staff, resulted in several commonalities. Participant interviews show that SS’s comprehensive approach in treating the whole person, and not just the physical aspect, as the goal in weight management is successful and well received. Additionally, increased pressure from command leadership to improve FEP compliance and participation of 30% could have more of an effect than program changes. Further studies would be needed to elucidate the importance of command leadership on compliance rates of WMPs.

Limitations to the quantitative portion of this project included the inability to fully capture various data for the population at NMCSD, either due to partial or nonexistent data from various entities contacted. Most notable was the information provided by NMCSD Legal Services Office. Information regarding ADSEP per year for BCA and/or PRT failures at NMCSD during the years of 2008–2014 was provided, but only included data representing separations for sailors ranked E-6 and below. Efforts to capture additional data related to E-7 and above, and officers, were not successful within the time constraints of this quality improvement project. Also, ADSEP data provided were unable to explain the sudden 2014 spike in BCA-related separations or the four year downward trend that existed prior to 2014.

Limitations to the qualitative portion of this project included attempting to interview three successful and three unsuccessful participants for each WMP. Of the total
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personnel contacted via email and repeat phone calls, two successful and one unsuccessful FEP participants responded and one successful and one unsuccessful SS participant responded. Another potential limitation may be that only the staff at the Health and Wellness Center were interviewed. Perhaps, if Assistant Command Fitness Leaders were interviewed, external to the Health and Wellness department, an independent perspective within the community may have shed additional light on the program’s effectiveness and limitations.

CONCLUSIONS
The WMPs in the Navy, particularly SS, will likely grow in demand by future sailors due to the growing obesity epidemic and comparable program success. To improve the WMPs at NMCSD, the findings in this report support the following recommendations: (1) maximize the SS program, (2) increase utilization of FEP, and (3) increase the participation and training of ACFLs.

WMPs navy-wide may benefit from incorporating similar program improvements to increase physical readiness of service members and, therefore, support command mission success.

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REFERENCES