Effectiveness of a 11-week Community-Based Adult Fitness Program on Moderately Fit Individuals

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Kinesiology

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Abstract

Effectiveness of an 11-week Community-Based Adult Fitness Program on Moderately Fit Individuals

By

Brittney Marie Barfield

Master of Science in Kinesiology

The purpose of this study was to determine the effectiveness of an 11-week community-based adult fitness program at El Cariso Regional Park, on moderately fit individuals. The hypothesis of this study was that after an 11-week exercise intervention, through use of combination strength, aerobic and anaerobic training, the participants would have a significant increase in both muscular and cardiovascular endurance.

Eligibility requirements were that participants had to be of the ages 18-80 years old, have blood pressure no greater than 140/90 and answered “No” to all the questions on the Physical Activity Readiness Questionnaire (PAR-Q). The independent variable of this study was the 11-week exercise intervention. The dependent variables of this study included the 12-min run/walk (cardiovascular endurance test), plank test (core endurance test), squat test (lower body endurance test) and pushup test (upper body endurance test).
This protocol consisted of two testing weeks (pre and post) and an 11-week exercise intervention. The 11-week exercise intervention consisted of 150-minutes of physical activity per week. The program took place three times per week (Monday, Wednesday and Friday) for 60-minutes. The exercise intervention was a non-linear periodized program broken into three Mesocycles (4-weeks: 40 seconds / 4-weeks: 35 seconds / 3-weeks: 35 seconds). The program consisted of a 7-minute warm up, four 12-minute stations (upper body, lower body, core and cardio) and a 5-minute cool-down.

There were a total of nine participants who completed all fitness tests with an adherence rate of 83%. Although not all tests showed statistical significance, all participants showed a positive change in one or more of the fitness tests. These results demonstrated that an 11-week non-linear periodized fitness program in a community-based setting can achieve improvements in muscular and cardiovascular endurance and therefore provide reliable fitness programs at no cost to the participants.
CHAPTER I

Introduction

In the United States alone, more than one third of the population (34.9% or 78.6 million) is termed overweight or obese (CDC, 2015). Physical activity is one of the primary tools used in the prevention and management of obesity. It has been shown to reduce fat mass and to improve body composition. Physical activity also contributes to positive changes in hypertension, diabetes, heart disease, and some cancers. However, fewer than 20% of adults achieve the recommended amount of 150 minutes per week of physical activity (CDC, 2013).

The American College of Sports Medicine (ACSM) recommends that, out of the 150 minutes of recommended physical activity, two days per week should be directed towards resistance training and two to three times per week should be directed towards aerobic training. Resistance training is an important component in the maintenance of bone density, lean mass, strength and power. Whereas aerobic training has shown benefits in the improvement of heart function, decrease in fat mass and decreasing the prevalence of heart disease and diabetes. Studies have also shown that using a combination of the two exercise modalities has a greater favorable change physiologically.

However, when it comes to physical activity, accessibility and cost at times can become a barrier. Community-based fitness programs offer physical activity programs at a low cost. Research has showed that community-based programs not only provide the recommended amount of physical activity but has also shown to increase psychological well being, show favorable changes in body
composition and, most importantly, has assisted in increasing the public's overall participation in regular physical activity. While studies have shown that community-based fitness programs have been effective in providing physical activity, no investigation has assessed the use of combination training (aerobic and resistance training) in a community-based setting to optimize the greatest amount of physiological changes (ex. a decrease in percent body fat).

Statement of Purpose

The purpose of this study was to provide insight regarding the physiological benefits of combination training in community-based settings on moderately-fit adults. The significance of these investigations is that it will assist in the ability to develop and provide optimal community-based training programs at a low cost.

Hypotheses

The hypothesis of this study was that after an 11-week exercise intervention, through use of combination training, the participants would have a significant increase in both muscular and cardiovascular endurance.

Definition of Terms

For the purposes of this study it is important to understand several key terms related to fitness testing. First, ‘core muscular endurance’ is defined as the time held in a plank position. Second, ‘upper extremity muscular endurance’ is defined as the number of pushups completed to fatigue. This test differs between men and women. Men perform full pushups on their toes whereas women perform this test by performing knee pushups. Third, ‘lower extremity muscular
endurance’ is defined as the number of squats completed in a minute. Finally, ‘cardiovascular endurance’ is defined as the distance the participants covered in a 12-minute run/walk test.

Assumptions

There were three assumptions made in this study. One assumption was that all the participants answered truthfully to the pre and post questionnaires. Another assumption was that all the equipment used for biometrics and testing was valid and reliable. The final assumption was that all of the participants put forth their maximal efforts throughout the exercise programs and tests.

Delimitations

There were two delimitations of this study. The first delimitation was that participants of this program were required to be of the age of eighteen or older. The second delimitation was that this study was only conducted on moderately fit individuals.

Limitations

Within this study there were a few noted limitations. One of the limitations was that, due to only targeting a specific age population of 18 years or older, it was not applicable to children. Another limitation was that this study only tested moderately fit individuals; therefore, it was not applicable to low-fit or high-fit individuals. Since it was an outdoor program, another limitation to the study was the weather. If the weather was too hot, modifications had to be made to the program, and, if it was raining, the program was cancelled. The final limitation to the study was adherence rate. The program was conducted three
times a week therefore, the adherence rate of the participants could vary due to it being a voluntary program
CHAPTER II

Literature Review

*Obesity as an Issue*

Obesity continues to be a leading epidemic in the United States. Obesity is defined as having a Body Mass Index (BMI) of equal or greater than 30, whereas overweight is defined as having a BMI being equal to or greater than 25. In 2011-2012 nearly 34.9% of United States adult population was termed obese (Ogden, 2013). Obesity is higher among middle age adults, 40-59 years old (39.5%) than among younger adults, age 20-39 (30.3%) or adults over 60 or above (35.4%) adults (CDC, 2013). Overweight and obesity are contributed to the leading causes in preventable deaths. Some of the health complications related to obesity are diabetes, heart disease, stroke, hypertension, different cancers, depression, anxiety and an overall low quality of life. These secondary health complications of obesity have a huge effect in the rise of medical care costs. The medical costs for people who are obese are $1,429 higher per year than those of normal weight (CDC, 2015).

*Physical Activity*

These medical costs of obesity can be reduced and the secondary complications can be prevented. Physical activity is one of the most important tools used to improve and maintain an individual’s health. Regular physical activity plays a huge part in chronic disease prevention yet, only 48% of U.S adults meet the recommended amount of 150 minutes per week of physical activity (CDC, 2007). Physical activity aids in preventing obesity related conditions. By engaging in the recommended amount of physical activity
it will not only show physical benefits but will aid in the decrease of health care costs. Aerobic and resistance training are two of the most essential components of physical activity.

*Aerobic Fitness*

According to American College of Sports Medicine guidelines it is recommended that one participate in aerobic exercise for 20-60 minutes, 3-5 days per week. Research has shown that participation in the recommended bout of aerobic exercise has decreased fat mass, waist circumference, cardiovascular function and prevalence of diabetes and heart disease (ACSM, 2015, Giannopoulou, 2005, Jung, 2012, Saif, 2015, Willis, 2012). Diabetes was the 7th leading cause of death in the U.S. in 2010 and its diagnosis approximately doubles individual medical costs (CDC, 2014). An increased amount of abdominal fat has shown to increase the risk of developing Type 2 Diabetes. Two studies looked at the effects of aerobic training on fat mass in females with Type 2 Diabetes (Jung, 2012, Giannopoulou, 2005). Both studies showed that moderate aerobic exercise conducted three times a week resulted in a significant decrease in fat mass specifically abdominal fat and visceral fat by 14% and 9% respectively. Similarly, in another study testing the effects of moderate levels of aerobic training three times a week in both men and women results found a decrease in BMI as well as a decrease in blood pressure and heart rate (Saif, 2015). In the last study conducted by (Willis, 2012) the use of aerobic training showed a decrease in fat mass along with waist circumference. Although aerobic training is the key contributor to a decrease in fat mass and body composition resistance training also plays an important role in one’s physical activity regimen.
Resistance Training

Several studies have been conducted regarding the benefits of resistance training. Studies have shown that three times a week of resistance training shows positive correlations in lean body mass, bone density, muscular strength and functional performance (Seguin, 2003, Taaffe, 1999, Willis, 2012, ACSM, 2015, Benton, 2011, Kalapotharakos, 2005). Resistance training has been proven in these studies to be an important component in one’s physical activity regimen. The traditional recommendation is to engage in three training sessions per week for individuals primarily seeking improvement in their overall health and fitness capacity (ACSM, 2015). Physiologically, as the aging process occurs, there is a decrease in muscle mass known as sarcopenia. Therefore maintaining muscle strength is an essential aspect for maintaining functional ability and decreasing the incidence of disability in the older adult population (Kalapotharakos, 2005). Two studies looked at the effects of resistance training three times a week on the improvement in functional performance in older adults in which both saw improvements in lean body mass and functional performance (Kalapotharakos, 2005, Seguin, 2012). In similar studies conducting resistance training three times a week, there was an increase in lean body mass and muscular strength (Taaffee, 1999, Benton, 2011, Frontera, 1988). Additionally, according to ACSM increased weight bearing with resistance training is considered beneficial in improving bone density and decreasing the likelihood of developing osteoporosis.
Combination Training

Though all these studies have shown the benefits of aerobic and resistance training other research has concluded that the combination of the two may have the same if not more benefits. The changes due to combination training are driven by an increase in lean body mass by the use of resistance training and a decrease in fat mass by use of aerobic training (Willis, 2012). One study looked at a 12-week combination training (including 15 minutes of aerobic and 15 minutes of resistance training) program that took place three to five days per week and showed favorable changes in body composition (Ho, 2012). In similar studies combination training showed changes positive change in percent body fat, increase in muscular strength and overall enhancement the ability to perform activities of daily living (Takeshima, 2004, Ho, 2012, Sousa, 2014). The last study looked at the effects of combination training on diabetes and showed that combination of resistance and aerobic exercise is the optimal exercise strategy for simultaneous improvement of insulin resistance and functional limitation in older men and women (Barry, 2009).

Problems with Access to Physical Activity

Although, research has shown the importance in engaging regularly in physical activity, physical inactivity still affects a large percentage of the population. In 2004, 61% of the adult population did not engage in regular physical activity and 31 % of the adult populations were not exercising at all (Schutzer, 2004). Research has shown that there are specific barriers related to physical inactivity in the adult population (Schutzer, 2004), (Buman, 2010). Some of these barriers consist of health related conditions,
environment, lack of knowledge, cost and accessibility. Evidence also shows that exercise patterns in childhood can directly affect exercise patterns in adulthood (Schutzer, 2004).

Community-based Physical Activity

There are many barriers that can be related to physical inactivity such as lack of time, motivation, accessibility and cost. Community-based fitness programs can assist in removing barriers by providing programs that are accessible at a low cost. One example is public parks, which facilitate physical activity by providing places for individuals to walk or jog, and many have specific facilities for sports, exercise, and other vigorous activities (Cohen, 2007). Community-based fitness programs assist in improving adherence rates and motivational factors by providing a group setting. Being a part of a unit provides friendships, consistent motivation and encouragement.

Three programs looked at the effects on the use of recreational facilities or community centers conducting exercise programs three times a week on community-dwelling older adults (Fraga, 2011, Zhuang, 2014, Keller, 2008, Belza, 2006). Two programs conducted walking programs at recreational facilities targeting the older adult and senior population showing favorable changes in aerobic fitness, quality of life and a decrease in body mass index (Fraga, 2010, Keller, 2008). Recreational walking programs showed physical, social and psychological improvements and aided in the performance of activities of daily living (Zhuang, 2010). Another study looked at the combined modalities of aerobic, strength, balance and Tai chi training physical activity on fall prevention in older adults in a community center observed an increase in overall strength,
cadence and balance (Zhuang, 2014). The last study looked at a community-based group exercise program in participants average 75 years of age involving supervised classes that met three times per week for 1 hour (Belza, 2006). The classes emphasized moderate-intensity aerobic conditioning, strength training, flexibility, and balance exercises. Results of this study showed improvement in their overall functional abilities and gait. All of these community-based fitness programs showed significant changes in overall health and wellness. The community-based fitness programs also showed a strong adherence rate. This shows that community-based fitness programs can be effective and reliable in providing the recommended amount of physical activity.

Community-based fitness programs provide low cost accessibility to physical activity where research has shown the programs to provide for positive physical and physiological. With more than one third of the population considered obese (CDC, 2015) it is vital that we limit the barriers to accessibility of physical activity. We can achieve this by implementing more community-based physical activity programs. Research has shown the importance in achieving the recommended amount of 150 minutes of physical activity and the considerable amount of positive changes with the use of aerobic and resistance training. Some of the changes including a decrease in fat mass, increase in lean mass and decreasing the prevalence of hypertension, diabetes, stroke and some cancers. By implementing a community-based fitness program which achieves the recommended amount of physical activity, utilizes both aerobic and resistance training, and limits barriers to accessibility, the intent is to reduce physical inactivity and the prevalence of obesity.
CHAPTER III

Research Methods and Designs

Research Design

The purpose of this study was to determine the effectiveness of a structured 11-week community-based fitness program on cardiovascular and muscular endurance in moderately fit adults. This 11-week program will look at the pre and post data on biometrics (Body Mass Index, Weight, Waist to Hip), muscular fitness (Upper, Lower, Core), and Behavioral results (fitness knowledge, health satisfaction, confidence, days engaged in aerobic and strength etc.).

Participants

The participants for this study were part of the 100 Citizens Program at El Cariso Park in Sylmar. The inclusion criteria for the participants required them to be between the ages of 18-80 years of age, have blood pressure that was no greater than 140/90 and answered “No” to all the questions on the Physical Activity Readiness Questionnaire (PAR-Q).

The exclusion criteria of the participants were those who had a blood pressure greater than 140/90 and if they answered “Yes” to any questions on the PAR-Q. If participants marked “Yes” to any question on the PAR-Q they were instructed to obtain a physician’s clearance in order to participant within the program.

Prior to participation within the study all participants were required to complete registration forms consisting of Los Angeles County Liability form and Los Angeles photo consent form (see in Appendix A).
For the testing implementation we had a team of individuals consisting of twenty-two under graduate students and three graduate students. All students were required to attend a five-hour workshop in which they learned the basic skills and fundamentals to implement the fitness component of the program. Prior to the testing implementation the students underwent two hours of training, including retention of information taught which was specific to the testing protocols.

**Measures:**

The independent variable of this study was the 11-week exercise intervention. The dependent variables of this study included the 12-min run/walk (cardiovascular...
endurance test) (25), plank test (core endurance test) (25), squat test (lower body endurance test) (11) and pushup test (upper body endurance test) (20).

**Procedure:**

This study took place in August 2015 using the 100 Citizens program at El Cariso Community Park in Sylmar, California. Prior to implementation of the study the participants were already assigned into three different groups; Let’s Get Moving, Active Lifestyle and Performance based on best judgment of the program leads. These groups represent low, moderate and high fitness levels. The focus of this investigator looked at the Active Lifestyle group. The participants were offered 180-minutes of physical activity per week for an 11-week duration delivered by undergraduate and graduate students from California State University, Northridge’s Kinesiology Department.

The protocol consisted of two testing weeks (pre and post) and an 11-week exercise intervention. A similar pattern was followed by the Let’s Get Moving and Performance group, which were not the focus of this investigation. The pre and post testing was divided into three days (Monday, Wednesday and Friday). When the participants first arrived they were directed to check-in where their attendance was noted and they were given their testing cards, Bill of Rights, Adult Consent, and Questionnaires to complete as necessary. Following check-in they went into the paperwork room where they completed the necessary forms. All forms were offered in both English and Spanish with bilingual students present for questions. After completion of paperwork, participants completed their biometrics data collection. The biometrics station consisted of height, weight, BMI and waist-to-hip ratio. At the biometrics station all participants
were provided with privacy screens and were only asked to remove their shoes for height and weight. After completion of all biometrics participants were then sent to their respective fitness testing stations. Refer to Figure 3 for the layout of each day. The fitness portion of the testing consisted of four different physical fitness tests;

1) **12min walk/run (Cardiovascular Endurance)** (20)
2) **Squat (Lower body muscular endurance)** (11)
3) **Push-up (Upper body muscular endurance)** (20)
4) **Plank (Core muscular endurance)** (25)

*Figure 1: Plank Apparatus*

The fitness testing was organized to ensure there was no pre-exhaustion of any muscle groups. For day one of testing the participants were tested on the 12-minute walk/run and the plank. On day two the participants were tested on their squats and push-ups. The third day of testing was a make-up day for those who missed any tests. Prior to each test beginning there was a 5-minute warm up which was tailored specifically to the fitness tests that were going to be conducted that day. There were two 5-minute warm-ups offered in order to accommodate those who came late. All physical fitness tests were
explained to the participants in both English and Spanish prior to testing via a script (refer to Appendix B) to ensure consistency. After completion of the pre-testing, norms were established amongst the three fitness groups. Based on these norms the participants were reassigned into their proper fitness level for the 11 weeks training study. This will be discussed further in the discussion section.

*Figure 2: Testing Day Layout*

<table>
<thead>
<tr>
<th>Day 1 (Mon.)</th>
<th>Day 2 (Wed.)</th>
<th>Day 3 (Fri.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-In</td>
<td>Check-In</td>
<td>Check-In</td>
</tr>
<tr>
<td>Paperwork</td>
<td>Paperwork*</td>
<td>Paperwork*</td>
</tr>
<tr>
<td>Biometrics</td>
<td>Biometrics*</td>
<td>Biometrics*</td>
</tr>
<tr>
<td>Warm-Up #1 &amp; #2</td>
<td>Warm-Up #1 &amp; #2</td>
<td>Warm-Up</td>
</tr>
<tr>
<td>Plank Test</td>
<td>1-Minute Squat Test</td>
<td>Make-Up of All Tests*</td>
</tr>
<tr>
<td>12-Minute Walk/Run</td>
<td>Push-Up Test</td>
<td></td>
</tr>
</tbody>
</table>

*Only required if not completed on prior days*

The 11-week exercise intervention consisted of 180-minutes of physical activity per week. The program took place three times per week (Monday, Wednesday and Friday) for 60-minutes per day. The exercise intervention was implemented in the form of non-linear periodization. Non-linear periodization allows for focus on one variable at a time and allows for more flexibility. This will further be discussed in the discussion section. The program was broken down into three mesocycles with mesocycles being termed as medium-term training cycles that usually lasts between 2-8 weeks each targeting a specific goal. For this study there were a total of 3 mesocycles. Mesocycle one (4-weeks) focused on moderate volume to build a baseline of fitness
focusing on simple movements (35-second intervals per exercise). Mesocycle two (4-weeks) focused on increasing the volume to allow for more complex and intense movements to be learned (40-second intervals per exercise). The final and third mesocycle (3-weeks) returned to the initial volume to allow for integration of complex and simple movements leading up to their post-testing (35-second intervals per exercise).

The physical activity day was structured in the form of circuit training. Each day was divided into a 7-minute dynamic warm-up, followed by four twelve-minute stations and a 5-minute cool down. The 12-minute stations consisted of cardiovascular muscular endurance, upper body muscular endurance, lower body muscular endurance and core muscular endurance. Each station consisted of three circuits with three different exercises. All exercises remained the same for two intervention days to allow for the participants and interns to work together to improve form and implementation. The essential movements that were addressed in each workout via multi-joint movements were pushing, pulling, squatting, hinging, carrying, crawling/planking, rotating and anti-rotating. All three exercises within a circuit were performed back to back with a rest at the end of each circuit. Thirty-second breaks were offered to the participants while the instructors demonstrated the next circuit.

*Figure 3: Upper body circuit example*

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Push-ups</td>
<td>High Plank Hold</td>
<td>Bilateral High Row</td>
</tr>
<tr>
<td>Kettle Bell: Single</td>
<td>High Plank</td>
<td>Kettle Bell: Single</td>
</tr>
</tbody>
</table>
At the conclusion of the 11-week exercise intervention (30 sessions) participants completed their post-testing. The post-testing protocol was held in the same format as the pre-testing was held.

**Data Analysis**

All the tests used in this protocol were evaluated by using paired T-tests with bootstrapping. Due to this study having a small sample size bootstrapping provides a more reliable estimate of the statistics than asymptotic tests. Results were analyzed to see if there was a statistical significance between the pre and post-tests. Statistical significance was set at $P<0.05$ for this study. Those who attended 50% (15 out of 30 days) or more of the exercise intervention were analyzed.
CHAPTER IV

Results

Program Adherence

The length of this study was 11-weeks with the exercise intervention consisting of a total of 33 sessions but with 3 government holidays resulting in park closure, there were 30 total exercise days offered. Attendance was taken daily and only those who attended 50% or 15 exercise days were evaluated in this study. A total of 14 participants took part in the pre-testing data collection. Out of the total 14 participants 10 participants met the criteria for this study.

Chart 2: Program Adherence

Behavioral Changes

Days of Aerobic and Strength Activity

A paired sample t-test with bootstrapping was used to determine the pre and post means for days the participants participated in strength and aerobic activity outside of the
100 citizens program. The mean for strength of the pre-test was 0.5 days (sd = .85) and the mean of the post-test was 1.2 days (sd = 1.5). There was no significant difference (p>.05) found between the pre and post-test for days of strength activity (n=10). The mean for days of aerobic activity of the pre-test was 2.1 days (sd= 1.5) and the mean of the post-test was 1.7 days (sd=1.2). There was also no significant difference (p>.05) found between the pre and post-tests for days of aerobic (n=10).

*Chart 3: Days of Strength*

![Chart 3: Days of Strength](image)

*Chart 4: Days of Aerobic*

![Chart 4: Days of Aerobic](image)

*Confidence in Performing Exercises Independently*

A paired sample t-test with bootstrapping was used to determine the pre and post test mean scores of confidence. The mean of the pre-test was 3.1 (sd = .6) and the mean of the post-test was 3.0 (sd = .7). The number three respresents that the participants are
“somewhat confident” in performing exercises on their own. There was no significant difference between the pre and post tests (p>.05).

Chart 5: Confidence

Health Satisfaction

A paired sample t-test with bootstrapping was used to determine the pre and post test mean scores of health satisfaction. The mean of the health satisfaction pre-test was 3.7 (sd = 1.1) representing the participants were neither dissatisfied or satisfied with their health. The mean of the post-test 4.2 (sd = .4) represents that the participants moved to being “neither dissatisfied or satisfied” to “satisfied” with their health. There was no significant difference between the pre and post-tests (p>.05)

Chart 6: Health Satisfaction
Biometrics

Weight

A paired sample t-test with bootstrapping was used to determine the pre and post data for weight. The mean for weight pre-test was 75.5 kg (sd = 28.9) and the post-test was 73.8 kg (sd = 27.8). There was no significant difference (p>.05) between the pre and post data. This data shows there was a 2.19% change in weight amongst the participants (n=10).

Chart 7: Weight

Body Mass Index (BMI)

A paired sample t-test with bootstrapping was used to determine the pre and post data for weight. The mean for BMI pre-test was 28.3 (sd = 5.8) and the post-test was 27.6 (sd = 5.5). There was no significant difference (p>.05) between the pre and post data. This data shows there was a 2.23% change in B.M.I amongst the participants (n=10).
A paired sample t-test with bootstrapping was used to determine the pre and post data for waist-to-hip ratio. The mean for waist-to-hip pre-test was .81 (sd = .08) and the post-test was .78 (sd = .07). There was a significant difference (p<.05) shown between the pre and post data. This data shows a positive change of a 3.15% decrease of waist-to-hip ratio amongst the participants (n=10).
Fitness Tests

*Fitness Norms*

The norms established amongst each group are based upon the Pre-Testing results from El Cariso Community Regional Park. The scores of all the participants were placed into numerical order and split into thirds. Each third was then averaged and thus established the fitness norms for each group.

*Figure 4: Group Norms*

<table>
<thead>
<tr>
<th></th>
<th>Let’s Get Moving</th>
<th>Active Lifestyle</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plank</td>
<td>≤ 1:00 minute</td>
<td>1:01 - 1:45 minute</td>
<td>1:46+ minute</td>
</tr>
<tr>
<td>1-Minute Squat</td>
<td>≤ 25</td>
<td>26 - 40</td>
<td>41+</td>
</tr>
<tr>
<td>Push-Up</td>
<td>≤ 15</td>
<td>16 - 30</td>
<td>31+</td>
</tr>
<tr>
<td>12-Minute Walk/Run (VO2)</td>
<td>≤ 15</td>
<td>16 - 25</td>
<td>26+</td>
</tr>
</tbody>
</table>

**12-minute Run / Walk**

A paired sample t-test with bootstrapping was used to determine the pre and post data for the 12-minute Run/Walk. The 12-minute Run/ Walk was estimated into VO2 max using the following formula: $V0_{2\text{max}} (\text{mL} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}) = (\text{distance in meters} - 504.9)/44.73$. The mean for 12-minute Run / Walk pre-test was 21.3 ml/kg/min (sd = 4.69) and the post-test was 23.6 ml/kg/min (sd = 4.2). There was no significant difference (p>.05) shown between the pre and post data. This data shows a percent change of 10.56% from the pre and post testing data amongst the participants (n=9).
Push-Ups
A paired sample t-test with bootstrapping was used to determine the pre and post data for the push-up test. The mean for the push-up pre-test was 14.7 reps (sd = 8.22) and the post-test was 18.8 reps (sd = 10.81). There was no significant difference (p>.05) shown between the pre and post data. This data represents a 28.03% change from the pre and post testing data amongst the participants (n=9).

Squat
A paired sample t-test with bootstrapping was used to determine the pre and post data for the squat test. The mean for the squat pre-test was 31.7 reps (sd = 7.29) and the
post-test was 38.2 reps (sd = 5.56). There was a significant difference (p<.05) shown between the pre and post data. This data represents a positive increase of 20.67% from the pre and post testing data amongst the participants (n=9).

*Chart 12: Squat*

A paired sample t-test with bootstrapping was used to determine the pre and post data for the plank test. The mean for the plank pre-test was 1.19 minutes (sd = .63) and the post-test was 1.38 minutes (sd = .55). There was no significant difference (p>.05) shown between the pre and post data. This data represents a 15.97% change from the pre and post testing data amongst the participants (n=9).

*Plank*

A paired sample t-test with bootstrapping was used to determine the pre and post data for the plank test. The mean for the plank pre-test was 1.19 minutes (sd = .63) and the post-test was 1.38 minutes (sd = .55). There was no significant difference (p>.05) shown between the pre and post data. This data represents a 15.97% change from the pre and post testing data amongst the participants (n=9).
Chart 13: Plank

A paired sample t-test with bootstrapping was used to determine the pre and post data for the challenge course. The mean for the challenge course pre-test was 7.9 minutes (sd = .92) and the post-test was 7.1 minutes (sd = 1.02). There was a significant difference (p<.05) shown between the pre and post data. This data represents a 10.13% change from the pre and post testing data amongst the participants (n=6).

Chart 14: Challenge Course
CHAPTER V

Discussion

In the United States alone, more than one third of the population (34.9% or 78.6 million) is termed overweight or obese (2). It is important that we target this epidemic as it continues to grow. Physical activity is one of the primary tools used in the prevention and management of obesity. The 100 Citizens program provides for a free fitness opportunity that can assist in helping any individual reach the 150 recommended minutes per week of physical activity. The 100 Citizens program is a collaborative program between community parks and the Kinesiology Department of California State University of Northridge. The Kinesiology students are able to use their education to implement the exercises and provide progressions and regressions to the participants enabling people of diverse fitness levels to be served. The 100 Citizens program provides free tools to assist in reducing the accessibility and cost barriers to participating in structured physical activity.

Regular physical activity plays a huge part in chronic disease prevention yet only 48% of U.S adults meet the recommended amount of 150 minutes per week of physical activity (2). Only 14.4% of Hispanics meet the recommended about of physical activity. It is important that we target the communities where there is a higher risk of obesity and lack of physical activity (3). This study was conducted at El Cariso Community Regional Park in Sylmar where 69.8% of it community is Hispanic. The hypothesis of this study was that after the exercise intervention the participants would have a significant increase in both muscular and cardiovascular endurance.
During this 11-week study the participants were evaluated in terms of percent total weight loss, waist-to-hip circumference, Body Mass Index, fitness tests (Plank, Squat, Push-up and 12-minute run/walk), behavioral questionnaire and individual attendance. This program exceeded the CDC recommended amount of physical activity of 150 minutes per week to improve health. Community-based fitness programs can aide in improving adherence rates and motivational factors by providing a group setting. Although we had a small sample size, the group setting could have been the reason why there was an 82% adherence rate amongst the participants. The primary criteria to determine success in this study were improvements in muscular and cardiovascular.

**Strengths**

Relative to the exercise recommendations provided by ACSM the 100 Citizens program provides a free opportunity to engage in exercise that exceeds those recommendations. This is particularly important when the adherence rate of the participants through out the study is considered. Although our sample size was small (n=9) we had an 82% adherence rate and consistency amongst those participants. Through the interpersonal relationships built amongst the participants and the improvements made to the structure of the program, by the end we gained a total of 14 new participants in the active group alone.

The 100 Citizens program is replicable. Following the study, a manual on our process and implementation was put together to allow for current and future 100 Citizens programs to replicate the fitness test protocols and a progressive exercise intervention.
The manual provides a progressive exercise intervention for other programs to follow if the staffing lacks sufficient expertise.

Prior to this study there was no structure to the exercise implementation. The program accomplished the goal of moderate to vigorous physical activity but lacked the progression element, which further improves the health and fitness of the participant. Currently, all 100 Citizens programs are now following these guidelines of a progressive exercise intervention and testing protocols.

Although there were minimal changes seen in the biometric test, the waist-to-hip test did show statistical significance. The pre-test mean showed a .81 (sd = .08) and a post-test mean was .78 (sd = .07). The changes may seem minimal but when looking at the ACSM waist-to-hip ratio chart .81-.85 is termed moderate risk for developing health conditions. Moving slightly down to .78 moved the participants from moderate risk to low risk. The goal of the 100 Citizens program is to assist in engaging the community in more physical activity and to aid in decreasing their health risks. The results in our study showed that the 100 citizens program at El Cariso was successful.

Additionally, out of the four fitness test, there was a statistically significant improvement found in lower extremity muscular endurance (1-minute squat test). There were expectations to see a statistical significance in all four fitness tests but this did not occur. Providing the adherence rate and new progressive program implemented there was the thought that the participants would have demonstrated greater improvement. As you can see in the results there was improvement amongst each fitness test however, they were not statistically significant as a result of the small sample size (n=9). This may be a
Type II error related to sample size. The challenge course which was a timed test combining aerobic and anaerobic activities reflected a significant improvement though it was not supported by several of the prior discussed fitness tests. The purpose of the challenge course was to give participants a biweekly opportunity to track their progress throughout the course of the intervention. Looking at the individual data, the participants show a steady decrease in their times throughout the semester. The challenge course was designed initially as a testing tool that could be learned and for participants to use independently outside of the program to track their changes. The challenge course comprised all four of the components targeted in the program (upper body, lower body, core and cardiovascular endurance). If they showed improvements in this test it should reflect the progress they are making through the intervention and their overall fitness. The challenge course has an element of competition that differs from the setting of the fitness test which may be a reason why significance was noted versus the fitness tests.

As stated prior, community-based settings assist in increasing motivational factors. Improvements are not always apparent or large enough to see and at times can be discouraging. Providing data or numbers for the participants to track their improvements can provide additional motivation. The challenge course was another way to continue to keep them motivated as they could see their changes made biweekly and assisted in giving them that motivational push they sometimes needed.

**Weakness**

Although this study provided the opportunity to implement a more structured 100 Citizens program there were still weaknesses to this study. One of the limitations of the
study was the ability to retain all of the participants through out the duration of the study. There were a total of fourteen participants who conducted the pre-testing and at the time of post-testing there was a total of nine. This was due to three participants who dropped from the program for unknown reasons and one participant who only attended the biometrics portion of the post-testing. These challenges exist in all exercise programs and greater attention needs to be paid to retention strategies. Within the 100 Citizens program it is important for students to get to know the participants and build relationships with them as well as know all the participants by name. Being in a group setting is motivating for the participants as they build friendships, encourage each other and hold each other accountable to their attendance.

After the pre-testing was conducted, norms were established based on the participants we had. In order to split the groups into three we placed the results of all three groups in sequential order and divided them into groups based on average. The norms were based off a population that was predominately a low-fit population. Therefore, we were unable to implement pre-established norms (11,20,25). This is a flaw in our study and we know our current norms don’t necessarily represent current research and data to term a group “High-Fit” for example but, they represent the average population that is currently attending El Cariso Park. As the program grows and future programs continue to implement the testing protocols, it is anticipated the norms will shift to a higher level providing for three distinct groups representing a low, mid, and high fit relative to established normative data.
Bioelectrical Impedance Analysis (BIA) was used to determine changes in body fat percentage. The BIA is an inexpensive, non-invasive, quick and portable tool for measuring body fat percentage. However, there are many factors that affect the validity of this instrument such as hydration, time of day it was used, and if participant exercised prior to being tested or consumed any food or beverages prior to being tested. Not giving the participants proper instructions the day before the testing took place did not provide the researchers with confidence in the measurements resulting in elimination of the data for consideration. A greater change in weight loss and BMI was anticipated but only minimal loss was shown. Participants were encouraged to attend a free nutrition class that was offered at El Cariso Park at the end of each exercise session. Participants attendance to the nutrition class was sporadic and therefore unable to compare their attendance with biometric changes. The coupling of nutrition with exercise plays a huge role in assisting to see greater change in weight and BMI. Due to the nutrition component not being mandatory, we feel this was a reason why minimal changes in components of body composition were observed.

The lack of student interns/volunteers assistance with conducting fitness tests and exercise intervention was another flaw within the study. Because fitness test were implemented simultaneously through all three groups there was a smaller number of student assistance per fitness station. For all the fitness tests except the 12-minute run/walk participants needed to be tested independently. Throughout the stations there were only an average of 5-6 student testers. Additionally, there were limitations on the numbers of students who could interpret for the participants who were only Spanish
speaking. The 100 Citizens programs assists to bridge the gap between Kinesiology and public health. The lack of student intern/volunteers shows that there is still a large gap in student involvement. Getting students more engaged and involved in taking what they learn in the classrooms and implementing it in the field is important. It is the future students who will continue to motivate and educate the community members to engage in physical activity. Further involvement by the faculty of the Kinesiology Department encouraging an understanding of the value kinesiology has to public health will place a higher priority for students. However, that may require a cultural or evolitional shift in perspective earlier in the education of faculty to have this occur.

Limitations

There were a few elements within our study that we were unable to control. One element for example is that being an outdoor program it is effected by the weather. For our fitness tests the 12-minute run /walk and plank test was held outside. During the conduction of our pretesting it was extremely hot outside and being on the artificial turf field for the run it felt even hotter. During the post testing it was really cold and windy and as a result participants struggled with the resistance of the wind, seen mostly during their run. Re-scheduling tests due to weather is challenging to ensure consistent attendance.

Being a free outdoor program there are limitations to the equipment available. Due to the minimal equipment it was challenging to provide the participants with progression in terms of resistance to assist in providing overload. As a result we were limited to a non-linear periodized program design. Non-Linear periodization allowed for
us to focus on the two variables we could change which were time and intensity relative to fatigue, i.e., more repetitions, which are more endurance rather than strength related.

Additionally, some of the participants used in this study were previously apart of the program. Although, those who were previously apart of the program were engaged in the exercises implemented by the program, a proper progressive exercise intervention was not yet established for the program.

**Implications**

The results of the 11-week program at El Cariso Regional Park demonstrated that the structured 100 Citizens program run by the Kinesiology students of CSUN can assist in providing the community with the tools needed to improve their overall fitness. The intention of this study was to provide the pre-established 100 Citizens program with a progressive exercise model and to assist in creating a more structured program. Currently, all six pre-established 100 citizens programs are implementing these protocols within their programs.

The 100 Citizens program as a whole currently averages about a total of sixty participants. This means there are sixty community members engaged in recommended bouts of physical activity that otherwise might not be. In retrospect we know that obesity is a rising epidemic and with that comes an increase in health care costs. The medical cost for obese individuals is $1,429 higher per year than those of normal weight (2). If we take this into consideration, by impacting sixty community members per year we are potentially contributing to a reduction in health care costs of $85,000 dollars per year. Currently, the 100 Citizens program has expanded to six different public park locations.
and working on expanding now to the different CSUs. The 100 Citizens programs are vital in removing barriers to physical activity, reducing health care costs and engaging students of kinesiology to take ownership of making healthy change in their communities.

**Future Research**

It is commonly recommended that nutrition be coupled with physical activity to see the greatest amount of physical changes. Future research should look at implementing this program with a mandatory or controlled nutrition component throughout the entirety of the intervention. Collection of accurate body fat percentage was not successful in our study due to lack of proper implementation however the data reflected a population with many who were overweight or obese. Having a limited amount of participants we were unable to find a strong statistical significance amongst our tests. Future work can look at implementing the same protocols with a greater sample size to truly see if there is statistical significance found although many of our challenges at recruiting a larger group were due to insufficient market outreach, which is challenging without a budget and the parks do not engage in very elaborate marketing of their programs. It is recommended that the 100 Citizens programs implement ongoing fitness testing as a means to intrinsically motivate the participants and add to the data to support the value of the program.


Appendix A

100Citizens
HEALTHY YOU @ EL CARISO
El Cariso Regional Park
13100 Hubbard St., Sylmar, CA 91342
(818)-367-5043 / (818)-367-5049

CSUN | Department of Kinesiology

Exercise for FREE! Lose Weight! Get Healthy!
ALL fitness levels are welcome!

Monday, Wednesday, Friday | 8:30 - 9:30am
For more information visit: www.100citizens.org
Appendix B

**PAR-Q & YOU**

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?</td>
<td></td>
</tr>
<tr>
<td>2. Do you feel pain in your chest when you do physical activity?</td>
<td></td>
</tr>
<tr>
<td>3. In the past month, have you had chest pain when you were not doing physical activity?</td>
<td></td>
</tr>
<tr>
<td>4. Do you lose your balance because of dizziness or do you ever lose consciousness?</td>
<td></td>
</tr>
<tr>
<td>5. Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?</td>
<td></td>
</tr>
<tr>
<td>6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?</td>
<td></td>
</tr>
<tr>
<td>7. Do you know of any other reason why you should not do physical activity?</td>
<td></td>
</tr>
</tbody>
</table>

If you answered YES to one or more questions

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

- You may be able to do any activity you want — as long as you start slowly and build up gradually. Or you may need to restrict your activities to those which are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.
- Find out which community programs are safe and helpful for you.

NO to all questions

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:
- start becoming much more physically active — begin slowly and build up gradually. This is the safest and easiest way to go.
- take part in a fitness appraisal — this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

DELAY BECOMING MUCH MORE ACTIVE:
- if you are not feeling well because of a temporary illness such as a cold or a fever — wait until you feel better; or
- if you are or may be pregnant — talk to your doctor before you start becoming more active.

PLEASE NOTE: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

Informed Use of the PAR-Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

No changes permitted. You are encouraged to photocopy the PAR-Q but only if you use the entire form.

**NOTE:** If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.

"I have read, understood and completed this questionnaire. Any questions I had were answered to my full satisfaction."

NAME ____________________________

SIGNATURE ____________________________

DATE ____________________________

SIGNATURE OF PARENT or GUARDIAN (for participants under the age of majority)

WITNESS ____________________________

**Note:** This physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if your condition changes so that you would answer YES to any of the seven questions.
Cuestionario Para Práctica de Actividad Física

Un cuestionario para personas de edades 15 a 69

La actividad física es divertida y saludable, y cada día más gente está comenzando a ser más activa. Siendo más activo es seguro para la mayoría de las personas. Sin embargo, algunas personas deben ser evaluadas por un médico antes de empezar siendo más activos.

Si usted planea ser mas activo, empiece por contestando las siete preguntas en este cuestionario. Si tiene entre 15 a 69 años de edad, este cuestionario le dirá si necesita consultar con un médico antes de comenzar. Si usted es mayor de 69 años de edad y no ha sido muy activo debe visitar a un médico.

El sentido común es su mejor guía al contestar las siguientes preguntas. Por favor lea las preguntas cuidadosamente y respóndalas con honestidad: marque Sí o No.

<table>
<thead>
<tr>
<th>Si</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ¿Alguna vez su médico le ha dicho que tiene un problema en el corazón y que usted debe hacer actividad física bajo recomendación médica?</td>
<td></td>
</tr>
<tr>
<td>2. ¿Usted presenta dolor o molestia en su pecho cuando hace actividad física?</td>
<td></td>
</tr>
<tr>
<td>3. ¿En el último mes, ha tenido dolor en el pecho sin andar haciendo actividad física?</td>
<td></td>
</tr>
<tr>
<td>4. ¿Perde su balance o equilibrio a causa de mareo, o alguna vez ha perdido la conciencia?</td>
<td></td>
</tr>
<tr>
<td>5. ¿Tiene algún problema en los huesos o articulaciones que pueda empeorar al hacer actividad física?</td>
<td></td>
</tr>
<tr>
<td>6. ¿Su médico le ha recetado medicina para la presión arterial o para una condición de corazón?</td>
<td></td>
</tr>
<tr>
<td>7. ¿Conoce cualquier otra razón que le impida a realizar actividad física?</td>
<td></td>
</tr>
</tbody>
</table>

**Si Usted Respondió:**

Hable con su médico por teléfono o en persona ANTES de empezar a aumentar su nivel de actividad física o ANTES de realizar una prueba de ejercicio. Informe a su médico sobre este cuestionario y cuales preguntas respondió “Sí.”

- Usted puede ser capaz de hacer cualquier actividad que quiera, siempre y cuando comience lentamente y aumente gradualmente. O bien, puede que tenga que limitar sus actividades a las que son seguras para usted. Hable con su médico acerca de los tipos de actividades que desea participar y siga sus consejos.
- Averigüe en su comunidad los programas que sean seguros y saludables para usted.

**No A Todas las Preguntas:**

Usted puede estar seguro puede:
- **Comenzar a ser más activo**: comience lentamente y aumente gradualmente. Esta es la manera más segura y fácil.
- **Realizar una prueba de ejercicio**: Esta es una forma excelente para determinar su condición física y poder planear el mejor plan para aumentar su actividad física. También es recomendable que se haga una evaluación de presión arterial. Si su presión es más alta de 144/94, hable con su médico antes de empezar a ser más activo.

Retrace en siendo más activo:
- Si no se siente bien debido a una enfermedad temporal tal como resfriado, gripe, o fiebre – espere a sentirse mejor;
- Si está o puede estar embarazada. Hable con su médico antes de comenzar.

**Atención:**

Si su salud cambia y contesta Sí a cualquiera de las preguntas arriba, digále a su instructor de ejercicio. Pregúntele si debe cambiar su plan de actividad física.

Informado uso de este cuestionario: La Sociedad Canadiense de Fisiología del Ejercicio, Salud Canadi, y sus agentes no asumen ninguna responsabilidad de las personas que realizan actividad física, y si tiene alguna duda después de completar este cuestionario, consulte con su médico antes de hacer actividad física.

“Yo he leído, entendido y he completado este cuestionario. Todas las preguntas han sido contestadas con mi completa satisfacción.”

Nombre: ___________________________

Firma: ____________________________ Fecha: _____________________________

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Appendix C

County of Los Angeles Department of Parks and Recreation
North County Community Services Agency
13100 Hubbard St. Sylmar, CA 91342

100 Citizens
Adult Fitness Program
Monday and Wednesday 8:30 – 9:30 am

Name

Last Name

Address

City

Zip

Day Time Phone

Evening Phone

Email Address

Emergency Contact Name/Relationship

Emergency Phone Number

I approve of my participation in the 100 Citizens Fitness and Friday Morning Warriors Program. I hereby release the County of Los Angeles Department of Parks and Recreation, its officers, agents, servants, assigns, employees, or volunteers from any liability or responsibility for any death or injuries said person in my custody might sustain while participating in any activity connected in any way with the aforementioned program.

Title VI Compliance

The County of Los Angeles Department of Parks and Recreation is a sub recipient of Federal Assistance, if you feel you have been subject to discrimination on the basis of race, color, national origin, age, sex, or handicap you may file a complaint with the County of Los Angeles Department of Parks and Recreation 435 South Vermont Avenue, Los Angeles, California 90020, or the Office of Equal Opportunity, United States Department of Interior, Washington D.C.

ADA NOTICE

Pursuant to the Americans with Disabilities Act (ADA), the County of Los Angeles, Department of Parks & Recreation, has designated an ADA Coordinator to carry out this department’s compliance with the non-discriminatory provisions of the ADA. For more information you may contact the ADA Coordinator Office: TEL. 213-336-2970 TDD 213-427-6118 FAX. 213-870-0588. Upon 3-day request notice, sign language interpreters and related materials in alternative formats (Braille transcript, large print, audio-record, video-captions, live description) or any other reasonable accommodations are available to the public for County-sponsored activities and events.

Signature: ______________________________ Date: _______________
Appendix D

PRE-QUESTIONNAIRE

1. On average, how many days per week do you engage in aerobic physical activities outside of the 100 Citizens Program (for example: brisk walking or jogging)?
   0 1 2 3 4 5 6 7

2. On average, how many days per week do you engage in strength training outside of the 100 Citizens Program (for example: body weight exercises, weight lifting, or resistance training)?
   0 1 2 3 4 5 6 7

3. How much do you know about exercise?
   a. Nothing at all
   b. A little
   c. A moderate amount
   d. A lot
   e. A great deal

4. How confident are you in performing exercises on your own?
   a. Not confident at all
   b. Slightly confident
   c. Somewhat confident
   d. Very confident
   e. Extremely confident

5. What is your overall satisfaction with your health?
   a. Very dissatisfied
   b. Dissatisfied
   c. Neither dissatisfied or satisfied
   d. Satisfied
   e. Very satisfied

6. How did you hear about the 100 Citizens Program?
   a. Friends
   b. Flyers
   c. Relatives
   d. Park Office
   e. Other: ______________

7. What do you hope to achieve with the 100 Citizens Program (lose weight / be more healthy)?

   ________________________________________________________________
   ________________________________________________________________

8. Do you feel the program will help you achieve these goals?
   a. Yes
   b. No
   c. Not sure
POST-QUESTIONNAIRE

1. What is your gender?
   Female  Male

2. What is your age?
   __________________________

3. What is your zip code/city of residence?
   __________________________

4. What best describes your ethnicity?
   a. Hispanic/Latino
   b. Black/African American
   c. Caucasian/White
   d. Asian/Pacific Islander
   e. Other: ______________________

1. On average, how many days per week do you engage in aerobic physical activities outside of the 100 Citizens Program (for example: brisk walking or jogging)?
   0  1  2  3  4  5  6  7

2. On average, how many days per week do you engage in strength training outside of the 100 Citizens Program (for example: body weight exercises, weight lifting, or resistance training)?
   0  1  2  3  4  5  6  7

3. How would you rate your knowledge of exercise?
   a. Not knowledgeable
   b. Somewhat Knowledgeable
   c. Very Knowledgeable

4. How confident are you in performing exercises on your own?
   a. Not Confident
   b. Somewhat Confident
   c. Very Confident

5. What is your overall satisfaction with your health?
   a. Very dissatisfied
   b. Dissatisfied
   c. Neither dissatisfied or satisfied
   d. Satisfied
   e. Very satisfied

6. Did you achieve your goals with the 100 Citizens Program?
   a. Yes
   b. No

7. What did you like most about the 100 Citizens Program?
   ________________________________________________________________
   ________________________________________________________________

8. What did you like least about the 100 Citizens Program?
   ________________________________________________________________
   ________________________________________________________________

9. Did you attend “Healthy You”?
   a. Yes
   b. No

10. Since starting the 100 Citizens Program, have you made any changes to your nutrition? If yes, how?
    ________________________________________________________________
    ________________________________________________________________

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1. ¿En promedio, cuántos días a la semana participa en ejercicios aeróbicos fuera del programa de 100 Citizens (por ejemplo: caminar a paso ligero o correr)?

   0  1  2  3  4  5  6  7

2. ¿En promedio, cuántos días a la semana participa en ejercicios de entrenamiento de fuerza fuera del programa de 100 Citizens (por ejemplo: ejercicio de peso corporal, levantamiento e pesas, o ejercicio de resistencia)?

   0  1  2  3  4  5  6  7

3. ¿Cuánto sabe usted sobre el ejercicio?
   a. Nada
   b. Muy poco
   c. Una cantidad moderada
   d. Mucho

4. ¿Qué confiado es usted de sí mismo al realizar los ejercicios solo/sola?
   a. No confiado/confiada
   b. Poco confiado/confiada
   c. Algún tanto confiado/confiada
   d. Muy confiado/confiada
   e. Extremadamente confiado/confiada

5. ¿En totalidad, cuál es su satisfacción con su salud?
   a. Muy insatisfecho
   b. Insatisfecho
   c. No satisfecho ni insatisfecho
   d. Satisfecho
   e. Muy satisfecho

6. ¿Cómo escuchó del programa de 100 Citizens?
   a. Amigos/Añas
   b. Folletos
   c. Parientes
   d. La oficina del parque
   e. Otra: ________

7. ¿Qué meta espera lograr con el programa de 100 Citizens (bajar de peso / ser más saludable)?

8. ¿Cree que el programa le ayudara lograr esa meta?
   a. Sí
   b. No
   c. No estoy seguro/segura
1. ¿Cuál es su género?
   Femenino   Masculino

2. ¿Cuál es su edad?
   __________________________

3. ¿Cuál es su código postal/ciudad de residencia?
   __________________________

4. ¿Cuál describe mejor su origen étnico?
   a. Hispánico/Latino
   b. Afroamericano
   c. Caucásico/Norteamericano
   d. Asiático/Islas del Pacífico
   e. Otro: __________________________

1. ¿En promedio, cuántos días a la semana participa en ejercicio aeróbico fuera del programa de 100 Citizens (por ejemplo: caminar a paso ligero o correr)?
   0 1 2 3 4 5 6 7

2. ¿En promedio, cuántos días a la semana participa en ejercicios de entrenamiento de fuerza fuera del programa de 100 Citizens (por ejemplo: ejercicios de peso corporal, levantamiento de pesas, o ejercicio de resistencia)?
   0 1 2 3 4 5 6 7

3. ¿Qué clasificación le daría a su conocimiento sobre el ejercicio?
   a. Sin conocimiento
   b. Poco conocimiento
   c. Mucho conocimiento

4. ¿Qué confiado es usted de sí mismo al realizar los ejercicios solo/sola?
   a. No confiado/confiada
   b. Algún tanto confiado/confiada
   c. Muy confiado/confiada

5. ¿En totalidad, cuál es su satisfacción con su salud?
   a. Muy insatisfecho
   b. Insatisfecho
   c. Ni satisfecho ni insatisfecho
   d. Satisfecho
   e. Muy satisfecho

6. ¿Logró su meta con el programa de 100 Citizens?
   a. Sí
   b. No

7. ¿Qué fue lo que le gusto más del programa de 100 Citizens?
   __________________________

8. ¿Qué fue lo que menos le gusto del programa de 100 Citizens?
   __________________________

9. ¿Atendió al programa de “Healthy You”? 
   a. Sí
   b. No

10. Desde que empezó el programa de 100 Citizens, ha hecho cambios en su nutrición? Si respondió sí, ¿cómo?
   __________________________
**Testing Card Sample**

<table>
<thead>
<tr>
<th>NAME:</th>
<th>_______________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP:</td>
<td>_______________________________</td>
</tr>
<tr>
<td>TEST (Pre/Post):</td>
<td>_______________________________</td>
</tr>
</tbody>
</table>

**BODY COMPOSITION**

- Weight: _______________________________  
  Notes: __________________________________
- Height: _______________________________  
  Notes: __________________________________
- Waist-to-Hip: ___________________________  
  Notes: __________________________________
- Body Fat %: _____________________________  
  Notes: __________________________________
- BMI: _________________________________  
  Notes: __________________________________

**PHYSICAL FITNESS TESTS**

- Plank: _________________________________  
  Notes: __________________________________
- 12-Minute Walk/Run: _____________________  
  Notes: __________________________________
- Push-Up: _______________________________  
  Notes: __________________________________
- Squat: ________________________________  
  Notes: __________________________________

- Bill of Rights
- Adult Consent Form
- Questionnaire
- Height
- Weight
- 12-Minute Walk/Run
- BiA
- Waist-to-Hip
- Push-Up
- Squat

This card is how we tracked all the data for the participants. The top box consists of check boxes where each tester would check the box of the test the conducted followed by their initials. Each participant had two cards, one for pre and one for post.
Appendix F

Monday (Day 1) Testing Flowchart

- This chart was sent out to all the students the day before the testing. One the chart they were able to see where they were stationed and how the flow of the day would go. This chart assisted with keeping a flow to the testing days.
Appendix G

Testing Scripts

* The leaders of the tests read these testing scripts to the participants prior to each test beginning.

12-Minute Run/Walk Test Script-English
1. “Hello, my name is (your name), and I will be testing your 12-Minute Walk/Run.”
2. For this test you will travel as far as possible around the turf field in 12-minutes by running, walking or using a combination of the two.
3. For each lap completed, a student will hand you a popsicle stick to hold onto throughout the run
4. If popsicle stick is dropped, a student will run it to you
5. Time updates will be given to you every minute throughout the test until the 11-minute mark, after which a time update will be provided at the 11:30-minute mark before calling for participants to stop.
6. When the 12-minute period is over, students will “CALL STOP”. Please stop and remain in place until your your distance is recorded using the measuring wheel and your popsicle sticks are collected
7. Cover as much distance as possible.

Plank Test Script-English
1. “Hello, my name is (your name), and I will be testing your plank.”
2. For this test you will remain in the proper plank position with a pvc pipe resting horizontally across your lower back for a maximum of four minutes.
3. Please begin by lying face down on the floor (prone)
4. locate the two bony bumps directly above your pant line, on either side of your spine.
   a. *Individual testers will mentally make note of where these processes are on the participant
5. Pull your toes up towards your knees as much as you can (dorsiflex)
6. Place your elbows directly beneath your shoulders
7. Form a “V” with your arms by touching your fingertips together, hands facing down
8. Raise your hips high enough so that your body is in a straight line from head to heels
9. You will hold this position until the tester adjusts the PVC pipe onto your low back
10. Your tester will then let you know to return to the starting position and rest for 30 seconds
11. After your rest, you bring your hips up to the bar and remain in contact with the bar for the duration of the test.
12. The test will be stopped if:
   a. Your hips drop below the bar for 2 seconds
   b. Your hips raise the bar for 2 seconds
   c. Your chest position changes for 2 seconds
   d. Your head position changes for 2 seconds
   e. Voluntarily stop

**Push-Up Test Script-English**

1. “Hello, my name is (your name), and I will be testing your push-up.”
2. To begin you will be in one of two positions:
   a. Hands & toes (males)
   b. Hands, knees and toes (females)
3. Begin by lying face down with your hands on the side of your chest roughly shoulder width apart
   a. Fingers pointed forwards
4. Pull your toes up towards your knees (dorsiflex)
5. Feet are hip width apart
6. Raise your entire body up to the starting position (straight line)
7. Perform 1-5 practice reps so your tester can assure you are in the correct position
   a. Bend at elbows
   b. Contact pushup counter
   c. Press back up to the starting position
   d. Maintaining straight line throughout body
8. Go to the rest position for 30 seconds
9. After your rest, return to the starting position
10. On your tester’s signal begin the test
11. The test will be stopped if:
    a. You voluntarily stop the test
    b. Perform 2 repetitions with improper form consecutively
       i. Hips too high/low
       ii. Did not touch counter
       iii. Did not return to full extension
c. Rest >2 seconds
d. Strain forcibly

**1-min Squat Test Script-English**
1. “Hello, my name is (your name), and I will be testing your squat.”
2. To begin you will take a seat on the edge of the chair (make sure they are stable):
3. Find a position that is appropriate for your feet so that you can comfortably stand-up without using your arms to assist (roughly between hip and shoulder)
4. Your arms will be crossed with your hands on your shoulders
5. **have everyone stand-up**
6. From standing position (starting), you will lower down to lightly tap the chair and return to the standing position.
7. Perform 1-5 practice reps so your tester can assure you are doing the movement properly
8. Rest for 30 seconds
9. After resting, return to the starting position and on your tester’s signal begin the test
10. The test will be stopped if:
    a. Voluntarily stop
    b. Perform 2 repetitions with improper form consecutively
       i. Improper hand placement
       ii. Not touching the seat
       iii. Do not return to standing position completely
       iv. Heels lift, valgus etc.
    c. Rest >2 seconds
    d. Strain forcibly

**12- Minute Run/ Walk Test Script- Spanish**
1.“Hola, me llamo (your name), voy (individual) a tomarles a ustedes la prueba de la caminata que va a durar 12(doce) minutos. (Side note: when it is one person proctoring the exam you will use the words “voy”, when it is a group of interns and volunteers you will use the word “vamos”). Nosotros vamos a tomarles a ustedes la prueba de la caminata que va a durar 12 (doce) minutos.
2. Para este examen de pratica van a tener la opcion de correr, caminar o combinar las dos para correr alrededor del la pista de correr las veces que puedan entre los doce minutos.
3. Las vueltas van a ser contadas usando unos palos pequenos hechos de maderas. Recibirán un palo de madera en cada vuelta.
4. Si unos de los palos de madera se caen, un estudiante va a correr a levantarlo y
regresarlo al participante.
5. Se va actualizar el tiempo cada minuto entre el exam de practica hasta el minuto
   Después el tiempo va ser actualizar al 11 minutos y 30 segundos antes que avicemos a los participantes que paren.
6. Cuando se termine la caminata de 12 (doce) minutos todos los estudiantes van a gritar (yell out) “Paren se ha terminado el examen.” Por favor paren y matengasen en el lugar adonde esten hasta que los palos de madera se colecten y sus distancias sean tomadas usando la sinta de medir.
7. Cubran la distancia mas posible que puedan durante la caminata!

**Plank Test Script- Spanish**

1. “Hola, me llamo (your name) voy a hacer la prueba practica para el ejercicio tablón”
2. Para esta prueba practica, va a permanecer en la posicion apropiado del tablon con una pipa de pvc encima de su espalda horizonatal. Van a tener que retener la pipa de pvc con su cintura el tiempo que puedan o lo máximo de cuatro minutos (4 min).
3. Por favor de acostarse sobre su abdomen
4. Por favor empiecen primero de localizar sus huesos que se encuentra al nivel de la cadera en la parte de atras dejando en medio de la espina dorsal.
   a. Individual testers will mentally make note of where these processes are on the participant
5. Apunten sus dedos de sus pies hacia sus rodillas
6. Alinien sus codos con sus hombros.
7. Formar (individual) Formen (group of participants) una “V” con sus brazos tocando sus dedos de sus dos manos.
8. Levanten sus caderas suficiente para que su cuerpo quede en una linea recta desde su cabeza a sus tobillos.
9. Van a retener esta posicion hasta que ajusten la pipa de pvc sobre su cintura.
10. El examinador le avisara cuando tengas que regresar a la posición inicial. Van a descansar por 30 segundos.
11. Después de descansar por 30 segundos va a subir su cadera hasta la pipa y permanecer en contacto con la pipa durante el examen.
12. El examen va a ser detenido si:
   a. Sus caderas bajen abajo de la pipa por dos segundos (2 sec).
   b. Sus caderas suban la pipa por dos segundos (2 sec).
   c. El pecho cambie de posición por dos segundos (2 sec).
   d. La cabeza cambie de posición por dos segundos (2 sec).
   e. Si usted voluntariamente se pare

**Push-Up Test Description: Spanish**

1. “Hola me llamo (your name) voy a tomarles examen de practica de las lagartijas.
2. Para empezar usted va estar en una de las dos posiciones:
   a. Para los hombres (men) usted va usar sus manos e los pies.
b. Para las mujeres (women) usted va usar sus manos, los pies, y las rodillas.
3. Iniciamos acostándose sobre su abdomen con las palmas de sus manos hacia el piso alado de su pecho
   a. Dedos apuntando hacia afrente.
4. Apunten sus dedos de sus pies hacia sus rodillas (dorsiflex)
5. La posición de sus pies deben de estar alineado al ancho de los hombros su cadera.
6. Levante su cuerpo para la posición inicial. (una línea recta)
7. Realizan uno a cinco repeticiones (1-5 reps) del ejercicio para que examenador pueda asegurale si esta en la forma corecta.
   a. Doblen sus codos
   b. Hagan contacto bajando su cuerpo manteniendo la espalda derecha
   c. Empujen de regreso al posición inicial
   d. Manteniendo la espalda derecha
8. Vayan a la posición de descanso y esten allí de treinta segundos (30 secs)
9. Después del descanso regresen al la posición inicial
10. En la senal del examinador va a empezar el examen de practica.
11. El examen de practica va a ser detenido si:
    a. Usted voluntariamente detenie el examen de practica.
    b. Realizan dos (2) repeticiones impropio consecutivas
       i. Sus caderas están muy arriba or muy abajo
       ii. Si su pecho no toca la maquina de contar a la misma vez mateniendo su espalda derecha
       iii. Si usted no regreso al la extensión completa
    c. Si usted descanse por menos de dos segundos (2 secs)
    d. Si usted cepa de la fuerza

1-min Squat Test Script- Spanish
1. “Hola me llamo (your name) voy a tomarles el examen de la sentadillas .
2. Para empezar van a tomar un aciento en la esquina de la silla . (make sure they are stable).
3. Encuentren una posicion que este apropiada para sus pies para que puedan parase sin usar sus brazos.
4. Sus brazos van a estar cruzados con sus manos ensima de sus hombros.
5. Digan a todos que se paren “Vamos a para nos desde la silla”. (Tell everyone “lets stand up from the chair”)
6. Desde la posicion parade (starting), van a bajar a tocar la silla ligeramente y luego regresar al la posicion parada.
7. Van a practicar la actividad 1-5 veces (1-5 times) para que el examinador puedan accegurace que lo estan haciendo adecuadamente.
8. Descansen por 30 segundos
9. Después de descansar, van a regresar a la posicion y en la senal de el examinador van a empezar el examen de practica.
10. El examen va hacer terminado si:
    a. Si usted para voluntariamente
b. Inicia 2 repeticiones con la forma incorrecto
   i. Las manos estan en la posicion incorrecto
   ii. No tocas el aciento
   iii. No regresan completamente a la posicion parada
   iv. El tobillo se levanta del el suelo
II. Descansen por mas de 2 segundos
III. Se cepa de la fuerza (Strain forcibly)

Warm-Up: Squat & Push-Up Test

1. Light Jog 1min
2. Lateral Weight Shift in Bottom of Squat 30sec
3. Medium Jog 1min
4. Squat to walk out push-up/high plank (depending on ability) 30sec
5. Jogging in place w/ exaggerated claps 30sec
6. Shoulder Taps or high plank hold 30sec
7. Squats 30sec
8. Lunge w/ Elbow to knee hold 15sec (R) & 15sec (L)

Warm-Up: Plank & 12-min Walk/Run

1. Light Jog 1min
2. Dynamic Reverse Lunge w/ Elbow to knee 20sec (R) & 20sec (L)
3. Medium Jog 1min
4. Low plank hold 30sec
5. High Plank Hold 20sec
6. Fast jog 1min
7. Standing Mountain Climbers 30sec

Warm-Up Make-Up Day

1. Light jog 1min
2. Jumping Jacks 30sec
3. Squat to walk out push-up/high plank (depending on ability) 30sec
4. Low Plank 30sec
5. Medium Jog 1min
6. Standing mountain climbers 30sec
7. Squats 30sec
8. Shoulder Taps 30sec
100 Citizens El Cariso Agenda

Date: 08/31/2015 - 09/02/2015

Group: Active Lifestyle

ALL INTERNS:

8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up:
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day, and increase intensity as we get closer to the end of the 10mins.

8:37am-8:49am Cardio:
- Equipment: N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>12- Minute Walk Run</td>
</tr>
</tbody>
</table>

- Begin as one big group
- Perform around tennis courts

8:49 am-9:01 am Upper Body: Fabian, JP
- Equipment: Kettle Bells
<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Push-ups</td>
<td>High Plank Hold</td>
<td>Bilateral High Row</td>
</tr>
<tr>
<td>Kettle Bell: Single Arm Row</td>
<td>High Plank Right Foot Tap</td>
<td>Kettle Bell: Single Arm Row</td>
</tr>
<tr>
<td>(Right)</td>
<td></td>
<td>(Right)</td>
</tr>
<tr>
<td>Kettle Bell: Single Arm Row</td>
<td>Hip Plank Left Foot Top</td>
<td>Kettle Bell: Single Arm Row</td>
</tr>
<tr>
<td>(Left)</td>
<td></td>
<td>(Left)</td>
</tr>
</tbody>
</table>

**9:01am-9:13am Lower Body: Erica**
- **Equipment:** Cones

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isometric Hip Hinge</td>
<td>Squat</td>
<td>Single Leg RDL (Right)</td>
</tr>
<tr>
<td>Hip Hinge W. Arm Behind Head</td>
<td>Ice skaters</td>
<td>Single Leg RDL (Left)</td>
</tr>
<tr>
<td>Chair Pose</td>
<td>Squat pulses</td>
<td>Squats</td>
</tr>
</tbody>
</table>

**9:13am-9:25am Core: Michael T.**
- **Equipment:** Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plank</td>
<td>Crawls</td>
<td>Isometric V- Sit</td>
</tr>
<tr>
<td>Side Plank Right</td>
<td>Isometric Bird Dog Right</td>
<td>Scissor Kicks</td>
</tr>
<tr>
<td>Side Plank Left</td>
<td>Isometric Bird Dog Left</td>
<td>Plank</td>
</tr>
</tbody>
</table>

**9:25am-9:30am Cool Down: Michael T.**
**100 Citizens El Cariso Agenda**

**Date:** 09/04/2015 – 09/09/2015

**Group:** Active Lifestyle

**ALL INTERNS:** Fabian, Michael T., Andrew T., Erica

8:00am: Agenda Read

**Info Table:** N/A

**Responsibilities:**
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am **Warm Up:** Erica

For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day, and increase intensity as we get closer to the end of the 10mins.

8:37am-8:49am **Cardio:** Erica

**Equipment:** N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sideline to Sideline Jog</td>
<td>Sideline to Sideline Jog</td>
<td>Sideline to Sideline Jog</td>
</tr>
<tr>
<td>Butt Kickers</td>
<td>Boxing Burnout</td>
<td>Jumping Jacks</td>
</tr>
<tr>
<td>Jogging in Place</td>
<td>Jogging in Place</td>
<td>Jogging in Place</td>
</tr>
</tbody>
</table>

8:49 am-9:01 am **Upper Body:** Fabian

**Equipment:** Battle Ropes, Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder Taps in High-Plank</td>
<td>SA Wave (R)</td>
<td>Modified Push-Up</td>
</tr>
</tbody>
</table>
Modified Push-Up | SA Wave (L) | SA Wave (R)  
--- | --- | ---  
Chair Pose | Pull & Dash | SA Wave (L)  

9:01am-9:13am **Lower Body:** Michael T.  
**Equipment:** Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squats</td>
<td>Isom. Glute Bridge (L)</td>
<td>Isom. Hinge</td>
</tr>
<tr>
<td>Calf Raises</td>
<td>Isom. Glute Bridge (R)</td>
<td>Hinge</td>
</tr>
<tr>
<td>Squats w/ Calf Raise</td>
<td>Bilateral Glute Bridge</td>
<td>Chair Pose</td>
</tr>
</tbody>
</table>

9:13am-9:25am **Standing Core:** Andrew T.  
**Equipment:** Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leg Chops</td>
<td>Standing Mountain Climbers</td>
<td>Leg Chops</td>
</tr>
<tr>
<td>Lateral Knee to Elbow (R)</td>
<td>Power Knees (R)</td>
<td>Chair Pose</td>
</tr>
<tr>
<td>Lateral Knee to Elbow (L)</td>
<td>Power Knees (L)</td>
<td>Standing Mountain Climbers</td>
</tr>
</tbody>
</table>

9:25am-9:30am **Cool Down:** Erica
100 Citizens El Cariso Agenda

Date: 09/11/2015 – 9/14/2015

Group: Active Lifestyle

ALL INTERNS:
8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Fabian
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: ONE BIG GROUP (Fabian lead)
Equipment: N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-min Run/Walk</td>
</tr>
</tbody>
</table>

8:49 am-9:01 am Upper Body: Erica, Michael T.
Equipment: Kettlebells

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA OH Press (R)</td>
<td>SA Bent Over Row (R)</td>
<td>3-sec Eccentric Push-up</td>
</tr>
<tr>
<td>SA OH Press (L)</td>
<td>SA Bent Over Row (L)</td>
<td>Seated Triceps Ext. (R)</td>
</tr>
<tr>
<td>OH Press from Goblet Carry</td>
<td>Bent Over Row</td>
<td>Seated Triceps Ext. (L)</td>
</tr>
</tbody>
</table>
9:01am-9:13am  Lower Body: Fabian
Equipment: N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lateral Weight Shift from Bottom of Squat (Alt.)</td>
<td>Reverse Lunge (Alt.)</td>
<td>SL RDL (R)</td>
</tr>
<tr>
<td>Isometric Hinge</td>
<td>Squat</td>
<td>SL RDL (L)</td>
</tr>
<tr>
<td>Hinge</td>
<td>Bilateral Glute Bridge</td>
<td>Squat</td>
</tr>
</tbody>
</table>

- Have participants slide foot when learning RDL

9:13am-9:25am  Core: Andrew Tiu
Equipment: Sandbags

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral Farmer’s Walk (R)</td>
<td>Chair Pose</td>
<td>Unilateral Farmer’s Walk (R)</td>
</tr>
<tr>
<td>Unilateral Farmer’s Walk (L)</td>
<td>Low Plank</td>
<td>Unilateral Farmer’s Walk (L)</td>
</tr>
<tr>
<td>Front Carry Farmer’s Walk</td>
<td>High Plank</td>
<td>Front Carry Farmer’s Walk</td>
</tr>
</tbody>
</table>

- The farmer’s walk will incorporate the Sandbags. If the sandbag is too heavy have the participant grab a kettlebell.

9:25am-9:30am  Cool Down: Andrew Tiu

100 Citizens El Cariso Agenda
Date: 09/16/2015 - 9/18/2016

Group: Active Lifestyle

ALL INTERNS: JP, Todd, Michael, Andrew, Nicole B., Brittney

8:00am: Agenda Read

Info Table: Todd
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am **Warm Up:** Nicole B.
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am **Cardio: ONE BIG GROUP**
Equipment: N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Sec Eccentric Push-Up</td>
<td>V-Sit SA Row (R) w/ Band</td>
<td>Modified Push-Ups</td>
</tr>
<tr>
<td>High Plank Hold</td>
<td>V-Sit SA Row (L) w/ Band</td>
<td>Bent over Row w/ Band</td>
</tr>
<tr>
<td>Chair Pose</td>
<td>Triceps Dip</td>
<td>Iso. Bent Over Row w/ Band</td>
</tr>
</tbody>
</table>

8:49 am-9:01 am **Upper Body:** Andrew
Equipment: Band

- V-Sit SA Row- Partner Work. One partner will hold an iso row for 17 secs, while other is rowing. Switch roles after 17secs. Double up bands. Let participant know to to stop before they hit complete fatigue. Don’t want them getting hit with the band.
9:01am-9:13am **Lower Body:** Brittney  
**Equipment:** Medicine Balls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static Lunge w/ Fwd. Press (L)</td>
<td>Goblet Squat w/ Ball</td>
<td>Glute Bridge</td>
</tr>
<tr>
<td>Static Lunge w/ Fwd. Press (R)</td>
<td>Hinge w/ Ball</td>
<td>Iso. Squat w/ Fwd. Press</td>
</tr>
<tr>
<td>Hinge w/ Ball</td>
<td>Goblet Squat w/ OH Press</td>
<td>Iso. Hinge</td>
</tr>
</tbody>
</table>

9:13am-9:25am **Core:** Michael & JP  
**Equipment:**

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Plank w/ SA Ext. (R)</td>
<td>Partner Iso. Pallof Press (R)</td>
<td>Side Plank w/ Dynamic Reach (R)</td>
</tr>
<tr>
<td>High Plank w/ SA Ext. (L)</td>
<td>Partner Iso. Pallof Press (L)</td>
<td>Side Plank w/ Dynamic Reach (L)</td>
</tr>
<tr>
<td>Modified Low Plank</td>
<td>Standing Mountain Climbers</td>
<td>Low Plank</td>
</tr>
</tbody>
</table>

- Pallof Press will be done w/out bands. Will explain Tomorrow.

9:25am-9:30am **Cool Down:** Michael

---

**100 Citizens El Cariso Agenda**

Date: 09/21/2015 - 09/23/2015  
Group: Active Lifestyle
ALL INTERNS:
8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up:
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: ONE BIG GROUP
Equipment:

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jumping Jacks</td>
<td>Sideline to Sideline Jog</td>
<td>Burpees</td>
</tr>
<tr>
<td>High Knees</td>
<td>Boxing Burnout</td>
<td>Quick Feet</td>
</tr>
<tr>
<td>Jumping Jacks</td>
<td>Butt Kickers</td>
<td>Hopping</td>
</tr>
</tbody>
</table>

8:49 am-9:01 am Upper Body:
Equipment: Battle Ropes

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave</td>
<td>Modified Push-Ups</td>
<td>Modified Push-Up</td>
</tr>
<tr>
<td>SA Wave (R)</td>
<td>Chair Pose w/ Rope</td>
<td>Sidewinder (R)</td>
</tr>
<tr>
<td>SA Wave (L)</td>
<td>Flutter w/ Rope</td>
<td>Sidewinder (L)</td>
</tr>
</tbody>
</table>

9:01am-9:13am Lower Body:
Equipment: N/A
Circuit 1  |  Circuit 2  |  Circuit 3
---|---|---
Patty Cake Squats  |  Alt. Reverse Lunge  |  Iso. Squat w/ Weight Shift
Glute Bridge  |  Iso. Hinge w/ Horizontal Fly  |  Hinge
Iso. Glute Bridge  |  Alt. Reverse Lunge  |  Alt. Reverse Lunge

**9:13am-9:25am Core:**

**Equipment:** SandBag

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uni. Farmer Walk (R)</td>
<td>Low Plank</td>
<td>Uni. Farmer Walk (R)</td>
</tr>
<tr>
<td>Uni. Farmer Walk (L)</td>
<td>High Plank</td>
<td>Uni. Farmer Walk (L)</td>
</tr>
<tr>
<td>Front Rack Carry</td>
<td>Chair Pose</td>
<td>Front Rack Carry</td>
</tr>
</tbody>
</table>

- Grab a couple kettlebells if sandbags are too heavy

**9:25am-9:30am Cool Down:**

---

**100 Citizens El Cariso Agenda**

**Date:** 09/25/2015 – 09/28/2015

**Group:** Active Lifestyle
ALL INTERNS: Andrew, Brittney, Erica, Fabian

8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Fabian
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: ONE BIG GROUP (Brittney Lead)
Equipment: 12-min run /walk

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-minute run walk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8:49 am-9:01 am Upper Body: Fabian
Equipment: MedBalls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over head Tricep Extension</td>
<td>Chest press</td>
<td>Modified Push-Up</td>
</tr>
<tr>
<td>Bicep curls</td>
<td>Bend over Row</td>
<td>Seated triceps</td>
</tr>
<tr>
<td>Slams</td>
<td>Shoulder Press</td>
<td>Modified Pushups</td>
</tr>
</tbody>
</table>

9:13am-9:25am Core: Erica
Equipment: Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plank (Testing form)</td>
<td>High Plank</td>
<td>Side Plank w. rotation (R)</td>
</tr>
<tr>
<td>V-sit</td>
<td>Mountain climbers</td>
<td>Side Plank w. Rotation (L )</td>
</tr>
<tr>
<td>-------</td>
<td>------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>bicycles</td>
<td>Low Plank</td>
<td>V-ups</td>
</tr>
</tbody>
</table>

9:01am-9:13am **Lower Body: Andrew**
Equipment:

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glute Bridge w. feet away from bottom</td>
<td>Alt. Reverse Lunge</td>
<td>Iso. Squat w/ Weight Shift</td>
</tr>
<tr>
<td>Single leg Glute Bridge ( R )</td>
<td>Alt. Side Lunge</td>
<td>Walking Lunge w. rotation</td>
</tr>
<tr>
<td>Single Leg Glute Bridge ( L)</td>
<td>Hip hinge</td>
<td>Squats (15 sec)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Squat Pulses (15 sec)</td>
</tr>
</tbody>
</table>

9:25am-9:30am **Cool Down**: Andrew

---

**100 Citizens El Cariso Agenda**

Date: 09/30/2015 - 10/02/2015

Group: Active Lifestyle

ALL INTERNS:
8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am *Warm Up*:  
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am *Cardio: ONE BIG GROUP*  
**Equipment:**

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jumping Jills</td>
<td>Squat to Walk-Out Plank</td>
<td>High Knees</td>
</tr>
<tr>
<td>Butt Kickers</td>
<td>Boxing Burnout</td>
<td>Quick Feet</td>
</tr>
<tr>
<td>Jumping Jacks</td>
<td>Hopping</td>
<td>Sideline to Sideline Jog</td>
</tr>
</tbody>
</table>

- boxing burnout- ½ done standing with quick feet, ½ done from squat position

8:49 am-9:01 am *Upper Body*:  
**Equipment:** Battle Ropes

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave</td>
<td>5-sec Eccentric Modified Push-Ups</td>
<td>5-sec Eccentric Modified Push-Up</td>
</tr>
<tr>
<td>SA Wave (R)</td>
<td>Chair Pose w/ Rope</td>
<td>Small Circles (R)</td>
</tr>
<tr>
<td>SA Wave (L)</td>
<td>Flutter w/ Rope</td>
<td>Small Circles (L)</td>
</tr>
</tbody>
</table>

- small circles- use hammer grip

9:01am-9:13am *Lower Body*:  
**Equipment:** Medicine Balls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball Pick-Up</td>
<td>Glute Bridge</td>
<td>Goblet Squat to OH Press</td>
</tr>
</tbody>
</table>
Iso. Hinge w/ Ball     Alt. Reverse Lunges     Hinge w/ Ball
Goblet Squat w/ Ball  Hinge w/ Ball        Iso. Squat w/ Weight Shift

9:13am-9:25am **Core:**
**Equipment:** SandBag

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uni. Farmer Walk (R)</td>
<td>Mountain Cimbers</td>
<td>Uni. Farmer Walk (R)</td>
</tr>
<tr>
<td>Uni. Farmer Walk (L)</td>
<td>High Plank</td>
<td>Uni. Farmer Walk (L)</td>
</tr>
<tr>
<td>Front Rack Carry</td>
<td>Chair Pose</td>
<td>Front Rack Carry</td>
</tr>
</tbody>
</table>

- Grab a couple kettlebells if sandbags are too heavy

9:25am-9:30am **Cool Down:**

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100 Citizens El Cariso Agenda

**Date:** 10/5/2015 – 10/7/2015

**Group:** Active Lifestyle

**ALL INTERNS:** J.P., Todd, Nicole B., Andrew, and Brittney

8:00am: Agenda Read

**Info Table:** Todd

**Responsibilities:**
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure
**8:30am-8:37am Warm Up: Andrew**
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

**8:37am-8:49am Cardio: ONE BIG GROUP**
**Equipment:** N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sideline to Sideline Jog</td>
<td>Sideline to Sideline Jog</td>
<td>Sideline to Sideline Jog</td>
</tr>
<tr>
<td>Butt Kickers (Half court and back)</td>
<td>Boxing Burnout</td>
<td>Quickfeet</td>
</tr>
<tr>
<td>High knees (half court and back)</td>
<td>Jumping jacks</td>
<td>Squat kicks</td>
</tr>
</tbody>
</table>

**8:49 am-9:01 am Upper Body: Andrew**
**Equipment:** Dumbbells / kettle bells / Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA OH Press (R)</td>
<td>SA Bent Over Row (R)</td>
<td>Tricep Over head extension</td>
</tr>
<tr>
<td>SA OH Press (L)</td>
<td>SA Bent Over Row (L)</td>
<td>3-sec Eccentric Push- up</td>
</tr>
<tr>
<td>Wide Grip shoulder Press</td>
<td>Bent Over Row</td>
<td>Over Head Tricep Ext</td>
</tr>
</tbody>
</table>

**9:01am-9:13am Lower Body: Brittney & J.P.**
**Equipment:** MedBalls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single leg stance partner toss (R)</td>
<td>(R) forward lunge into backward lunge</td>
<td>SL RDL (R) w. or w/o MB</td>
</tr>
<tr>
<td>Single leg stance partner toss (L)</td>
<td>(L) forward lunge into backward lunge</td>
<td>SL RDL (L) w. or w/o MB</td>
</tr>
<tr>
<td>Squat w. MB</td>
<td>Hip Hinge w. MB</td>
<td>Squat (BW)</td>
</tr>
</tbody>
</table>
- Have participants slide foot when learning RDL

**9:13am-9:25am Core:** Nicole B.
**Equipment:** Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner plank</td>
<td>Side Plank (R) w. dips</td>
<td>Bicycles</td>
</tr>
<tr>
<td>Pushups</td>
<td>Side plank (L) w. dips</td>
<td>Testing plank</td>
</tr>
<tr>
<td>Hip plank jumping in and out</td>
<td>Leg Lifts</td>
<td>pushups</td>
</tr>
</tbody>
</table>

**9:25am-9:30am Cool Down:** Chris
- Will lead cool down for all 3 groups as ONE BIG GROUP

---

**100 Citizens El Cariso Agenda**

**Date:** 10/9/2015 - 10/14/2015
**Group:** Active Lifestyle

ALL INTERNS: J.P., Todd, Nicole B., Andrew, and Brittney

8:00am: Agenda Read

Info Table: Nicole B.

**Responsibilities:**
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am *Warm Up:*
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am **Cardio: ONE BIG GROUP**

**Equipment:**

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fwd/Rev Quick Feet</td>
<td>Burpees</td>
<td>Jumping Jacks</td>
</tr>
<tr>
<td>Hopping</td>
<td>Sideline to Sideline Jog</td>
<td>Jumping Jills</td>
</tr>
<tr>
<td>High Knees</td>
<td>Uppercuts</td>
<td>Speed Skaters</td>
</tr>
</tbody>
</table>

8:49 am-9:01 am **Upper Body: Nicole B. & Todd**

**Equipment:** Medicine Balls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner Ball Roll in High Plank (R)</td>
<td>Bounce Pass to Partner</td>
<td>3-See Eccentric Push-Up</td>
</tr>
<tr>
<td>Partner Ball Roll in High Plank (L)</td>
<td>Arm Extension w/ Ball in Hinge</td>
<td>Walk out High Plank</td>
</tr>
<tr>
<td>High Plank Hold</td>
<td>Bounce Pass to Partner</td>
<td>Arm Extension w/ Ball in Hinge</td>
</tr>
</tbody>
</table>

9:01am-9:13am **Lower Body: Brittney**

**Equipment:** Ropes

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slams</td>
<td>Squats w/ Rope held in Front of Body</td>
<td>Squat to Rope Press</td>
</tr>
<tr>
<td>Reverse Lunge w/ Wave (L)</td>
<td>Iso. Hinge w/ Rope OH</td>
<td>Iso. Squat w/ Flutter</td>
</tr>
</tbody>
</table>
Reverse Lunge w/ Wave (R) | Alt. Reverse Lungs w/ Rope OH | 180 Hops Over Rope
--- | --- | ---
- Slams- should finish slam in the squat position

9:13am-9:25am *Core*: Andrew & J.P.

**Equipment:**

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing Mountain Climbers</td>
<td>V-Sit w/ Arm Flutters</td>
<td>Russian Twist</td>
</tr>
<tr>
<td>Power Knees (L)</td>
<td>High Plank w/ Elbows to Knees</td>
<td>Leg Chops (R)</td>
</tr>
<tr>
<td>Power Knees (R)</td>
<td>Low Plank</td>
<td>Leg Chops (L)</td>
</tr>
</tbody>
</table>

9:25am-9:30am Cool Down: J.P.

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**100 Citizens El Cariso Agenda**

Date: 10/16/2015 - 10/19/2015

Group: Active Lifestyle

ALL INTERNS: J.P., Todd, Marquis, Terry, Erica, and Brittney

8:00am: Agenda Read

Info Table: J.P.

**Responsibilities:**
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am *Warm Up*: Todd
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am *Cardio: ONE BIG GROUP*
*Equipment*: Hurdles, Ladders

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fwd/Rev Quick Feet</td>
<td>Lateral Shuffles (L) w/ Ladder</td>
<td>High Stepping w/ Hurdles</td>
</tr>
<tr>
<td>Hopping</td>
<td>Lateral Shuffles (R) w/ Ladder</td>
<td>In &amp; Out Around Hurdles</td>
</tr>
<tr>
<td>High Knees</td>
<td>Icky Shuffle w/ Ladder</td>
<td>High Stepping w/ Hurdles</td>
</tr>
</tbody>
</table>

8:49am-9:01am *Upper Body: Terry & Todd*
*Equipment*: SandBags

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bent Over Row w/ Bag</td>
<td>Bent Over Reverse Flys</td>
<td>Bent Over Row w/ Bag</td>
</tr>
<tr>
<td>Modified Push-Up</td>
<td>Shoulder Taps</td>
<td>Modified Push-Up</td>
</tr>
<tr>
<td>Triceps Dips on Bag</td>
<td>High Plank</td>
<td>Triceps Dips on Bag</td>
</tr>
</tbody>
</table>

9:01am-9:13am *Lower Body: Brittney*
*Equipment*: N/A

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL Calf Raise (R)</td>
<td>Hinge w/ Arms Extended</td>
<td>Reverse Lunge (R)</td>
</tr>
<tr>
<td>180 Squat Hops</td>
<td>SL Hinge (R)</td>
<td>Reverse Lunge (L)</td>
</tr>
<tr>
<td>SL Calf Raise (L)</td>
<td>SL Hinge (L)</td>
<td>Squats</td>
</tr>
</tbody>
</table>

9:13am-9:25am *Core: Marquis & Erica*
*Equipment*: N/A
<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Knee w/ Arms Extended</td>
<td>V-Sit w/ Arm Flutters</td>
<td>High Knee w/ Arms Extended</td>
</tr>
<tr>
<td>Burpees</td>
<td>High Plank w/ Elbows to</td>
<td>Power Knees (R)</td>
</tr>
<tr>
<td></td>
<td>Knees</td>
<td></td>
</tr>
<tr>
<td>Alt. Leg Chops</td>
<td>BirdDog</td>
<td>Power Knees (L)</td>
</tr>
</tbody>
</table>

9:25am-9:30am Cool Down: Terry

100 Citizens El Cariso Agenda
Date: 10/21/2015 - 10/23/2015
Group: Active Lifestyle

ALL INTERNS: Andrew, Darius, and Brittney

8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Andrew
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.
8:37am-8:49am **Cardio: ONE BIG GROUP**
*Equipment:*

<table>
<thead>
<tr>
<th>Circuit 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-Min Walk/Run</td>
</tr>
</tbody>
</table>

8:49am-9:01am **Upper Body: Andrew**
*Equipment: Bands*

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk Out Push-Up</td>
<td>Chest Press</td>
<td>Bent-Over Rows</td>
</tr>
<tr>
<td>Upright Rows</td>
<td>Upright Rows</td>
<td>Modified Push-Up</td>
</tr>
<tr>
<td>High Plank Hold</td>
<td>Walk Out Push-Up</td>
<td>High Plank Hold</td>
</tr>
</tbody>
</table>

9:01am-9:13am **Lower Body: Brittney**
*Equipment: N/A*

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt. Reverse Lunges</td>
<td>Lateral Hopping</td>
<td>Walking Lunges</td>
</tr>
<tr>
<td>Hinge w/ Arms Extended</td>
<td>SL Glute Bridge (R)</td>
<td>FWD/REV Hopping</td>
</tr>
<tr>
<td>Walking Lunges</td>
<td>SL Glute Bridge (L)</td>
<td>Squat Pulses</td>
</tr>
</tbody>
</table>

9:13am-9:25am **Core: Darius**
*Equipment: SandBags*

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral Carry (L)</td>
<td>Mountain Climbers</td>
<td>Unilateral Carry (L)</td>
</tr>
<tr>
<td>Unilateral Carry (R)</td>
<td>BirdDog</td>
<td>Unilateral Carry (R)</td>
</tr>
<tr>
<td>Front Rack Carry</td>
<td>High Plank In &amp; Out Jumps</td>
<td>Front Rack Carry</td>
</tr>
</tbody>
</table>
9:25am-9:30am Cool Down: Brittney

100 Citizens El Cariso Agenda
Date: 10/26/2015 - 10/28/2015
Group: Active Lifestyle
ALL INTERNS: J.P., Andrew, Nicole B., Todd, and Brittney
8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Todd
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: ONE BIG GROUP
Equipment: Hurdles / Ladders

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurdles: Run/Jump Over</td>
<td>Ladders: Lateral High Knees (L)</td>
<td>Burpees</td>
</tr>
<tr>
<td>Hurdles: Zig-Zag Through</td>
<td>Ladders: Lateral High Knees (R)</td>
<td>Jumping Jacks</td>
</tr>
</tbody>
</table>
Hurdles: Run/Jump Over | Ladders: Icky Shuffle | Standing Mountain Climbers

8:49am-9:01am *Upper Body*: Andrew
*Equipment*: Kettlebells / Dumbbells

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seated SA OH Press (R)</td>
<td>Bent-Over SA Row (R)</td>
<td>Walk Out Push-Up</td>
</tr>
<tr>
<td>Seated SA OH Press (L)</td>
<td>Bent-Over SA Row (L)</td>
<td>Seated SA OH Press (R)</td>
</tr>
<tr>
<td>Seated Chest Press</td>
<td>Reverse Fly Pulses</td>
<td>Seated SA OH Press (L)</td>
</tr>
</tbody>
</table>

- Use a kettlebell or a dumbbell for the seated presses and SA rows

9:01am-9:13am *Lower Body*: Nicole B. & J.P.
*Equipment*: Steppers

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL Step Up (R)</td>
<td>Iso. SL Hinge (R)</td>
<td>Squat to Calf Raise</td>
</tr>
<tr>
<td>SL Step Up (L)</td>
<td>Iso. SL Hinge (L)</td>
<td>Hinge w/ Arms Extended</td>
</tr>
<tr>
<td>Drop Off One Step Into Squat</td>
<td>Squat Jump (10sec)</td>
<td>Alt. Step Up</td>
</tr>
<tr>
<td></td>
<td>Squat Pulses (25sec)</td>
<td></td>
</tr>
</tbody>
</table>

- Arms Extended for Iso SL Hinge

9:13am-9:25am *Core*: Brittney & Todd
*Equipment*: Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain Climbers</td>
<td>Side Plank (L)</td>
<td>Reverse High Plank</td>
</tr>
<tr>
<td>BirdDog Pulses (R)</td>
<td>Plank</td>
<td>Russian Twist</td>
</tr>
<tr>
<td>BirdDog Pulses (L)</td>
<td>Side Plank (R)</td>
<td>Iso. Crawl</td>
</tr>
</tbody>
</table>

9:25am-9:30am Cool Down: J.P.
100 Citizens El Cariso Agenda
Date: 10/30/2015 – 11/2/2016

Group: Active Lifestyle
ALL INTERNS: J.P., Andrew, Nicole B., Todd, and Brittney
8:00am: Agenda Read

Info Table:

Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Brittney
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: Nicole B. / Erica
Equipment: Hurdles / Ladders

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurdles: Run/Jump Over</td>
<td>Ladders: 2ft in each fwd</td>
<td>Fwd/rev Quick Feet Over Line</td>
</tr>
<tr>
<td>Hurdles: Zig-Zag Through</td>
<td>Ladders: 1ft in each fwd</td>
<td>Lateral Hops Over Line</td>
</tr>
<tr>
<td>Hurdles: Run/Jump Over</td>
<td>Ladders: 2ft hop</td>
<td>Jumping Jacks</td>
</tr>
</tbody>
</table>

8:49am-9:01am Upper Body: JP / Brittney
Equipment: N/A
## Circuit 1
- Shoulder Taps
- Modified Push-Up
- High Plank Hold

## Circuit 2
- Reverse Fly Pulses
- Walk Out High Plank
- Chair Pose w/ Pulses

## Circuit 3
- Modified Push-Up
- Superman hold
- 3sec Eccentric Push-Up

---

### 9:01am-9:13am 
*Lower Body: Marquis / Todd*

**Equipment:** Sandbags

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bag Pick Up (Squat Form)</td>
<td>Bag Pick Up (Hinge Form)</td>
<td>Bag Pick Up (Squat Form)</td>
</tr>
<tr>
<td>Squats w/ Bag</td>
<td>Hinge w/ Bag</td>
<td>Bag Pick Up (Hinge Form)</td>
</tr>
<tr>
<td>Hopping</td>
<td>Iso. Hinge w/o Bag</td>
<td>Hinge w/ Bag</td>
</tr>
</tbody>
</table>

---

### 9:13am-9:25am 
*Core: Terry*

**Equipment:** Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>In &amp; Out Hops</td>
<td>Side Plank (L)</td>
<td>Reverse High Plank</td>
</tr>
<tr>
<td>BirdDog Pulses (R)</td>
<td>Plank</td>
<td>Russian Twist</td>
</tr>
<tr>
<td>BirdDog Pulses (L)</td>
<td>Side Plank (R)</td>
<td>Iso. Crawl</td>
</tr>
</tbody>
</table>

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### 9:25am-9:30am 
*Cool Down: Nicole B.*
100 Citizens El Cariso Agenda
Date: 11/04/2016 - 11/06/2016
Group: Active Lifestyle
ALL INTERNS: Fabian, Erica, Andrew, and Brittney
8:00am: Agenda Read

Info Table:
Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Erica
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: ONE BIG GROUP
Equipment:

<table>
<thead>
<tr>
<th>Circuit 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>12min Walk/Run</td>
</tr>
</tbody>
</table>

8:49am-9:01am Upper Body: Brittney
Equipment: Dumbbells

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bent Over Reverse Fly w/ DB</td>
<td>High Plank SA Row w/ DB (R)</td>
<td>Bent Over Reverse Fly w/ DB</td>
</tr>
<tr>
<td>Iso Bent Over Reverse Fly</td>
<td>High Plank SA Row w/ DB (L)</td>
<td>Modified Push-Up</td>
</tr>
<tr>
<td>Walk Out Push-Up</td>
<td>3sec Eccentric Push-Up</td>
<td>High Plank Hold</td>
</tr>
</tbody>
</table>
9:01am-9:13am  Lower Body: Andrew & Erica

Equipment: Medicine Balls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball Pick-Up</td>
<td>Hinge w/ Ball</td>
<td>Forward Lunge w/ OH Ball Press (R)</td>
</tr>
<tr>
<td>Goblet Squats w/ Ball</td>
<td>SL Hinge (R)</td>
<td>Forward Lunge w/ OH Ball Press (L)</td>
</tr>
<tr>
<td>Iso. Squat w/ Ball</td>
<td>SL Hinge (L)</td>
<td>Iso. Goblet Squat w/ Ball</td>
</tr>
</tbody>
</table>

9:13am-9:25am Core: Fabian

Equipment: Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Plank SL Flutters (R)</td>
<td>Side Plank w/ Reach (L)</td>
<td>BirdDog Pulse (R)</td>
</tr>
<tr>
<td>Iso. Superman</td>
<td>Side Plank w/ Reach (R)</td>
<td>BirdDog Pulse (L)</td>
</tr>
<tr>
<td>High Plank SL Flutters (L)</td>
<td>Iso. Crawl</td>
<td>Ice Cream Scoops</td>
</tr>
</tbody>
</table>

9:25am-9:30am Cool Down: Fabian

100 Citizens El Cariso Agenda

Date: 11/09/2015 - 11/13/2015

Group: Active Lifestyle

ALL INTERNS: Fabian, Erica, Andrew, and Brittney
8:00am: Agenda Read

Info Table:

Responsibilities:
- Greeting new participants
- Administering New Participant Forms
- Blood Pressure

8:30am-8:37am Warm Up: Erica
For the dynamic warm-up, we will first focus on slow continuous movements such as jogging coupled with movements that are relevant to what will be done that day. Increase intensity as we get closer to the end of the 7 mins.

8:37am-8:49am Cardio: ONE BIG GROUP
Equipment:

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>12min Walk/Run</td>
<td>High Plank SA Row w/ DB (R)</td>
<td>Bent Over Reverse Fly w/ DB</td>
</tr>
<tr>
<td>Bent Over Reverse Fly w/ DB</td>
<td>High Plank SA Row w/ DB (L)</td>
<td>Modified Push-Up</td>
</tr>
<tr>
<td>Iso Bent Over Reverse Fly</td>
<td>High Plank Hold</td>
<td></td>
</tr>
<tr>
<td>Walk Out Push-Up</td>
<td>3sec Eccentric Push-Up</td>
<td>High Plank Hold</td>
</tr>
</tbody>
</table>

8:49am-9:01am Upper Body: Brittney
Equipment: Dumbbells

9:01am-9:13am Lower Body: Andrew & Erica
Equipment: Medicine Balls

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ball Pick-Up</td>
<td>Hinge w/ Ball</td>
<td>Forward Lunge w/ OH Ball Press (R)</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Goblet Squats w/ Ball</td>
<td>SL Hinge (R)</td>
<td>Forward Lunge w/ OH Ball Press (L)</td>
</tr>
<tr>
<td>Iso. Squat w/ Ball</td>
<td>SL Hinge (L)</td>
<td>Iso. Goblet Squat w/ Ball</td>
</tr>
</tbody>
</table>

9:13am-9:25am *Core:* Fabian  
*Equipment:* Mats

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
<th>Circuit 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Plank SL Flutters (R)</td>
<td>Side Plank w/ Reach (L)</td>
<td>BirdDog Pulse (R)</td>
</tr>
<tr>
<td>Iso. Superman</td>
<td>Side Plank w/ Reach (R)</td>
<td>BirdDog Pulse (L)</td>
</tr>
<tr>
<td>High Plank SL Flutters (L)</td>
<td>Iso. Crawl</td>
<td>Ice Cream Scoops</td>
</tr>
</tbody>
</table>

9:25am-9:30am *Cool Down:* Fabian

Appendix I

**100 CITIZENS MANUAL**

100 Citizens is a free exercise program for adult and seniors provided by California State University, Northridge Kinesiology students. Participants engage in exercise stations designed for all fitness levels, focusing on improving cardiovascular endurance, muscular strength and endurance, flexibility, balance, agility, and fall prevention. The 100 Citizens location in Sylmar, California takes place at El Cariso Community Regional Park on Mondays, Wednesdays, and Fridays from 8:30am to 9:30am.
The 100 Citizens Program provides participants with the tools to become more physically active and nutritionally aware. In return, they will serve as healthy role models to their families, friends, co-workers, and others in their community. With program offerings on Mondays, Wednesdays, and Fridays from 8:30am to 9:30am, participants will engage in 60 minutes of exercise targeting cardiovascular endurance, muscular strength and endurance, flexibility, balance, agility, and fall prevention.

**Participant Requirements**

Before enrolling in the 100 Citizens Program, participants must complete the following on the day of registration. Registration will be facilitated by one student at the Info Booth, located inside the gymnasium. Once complete and cleared to exercise, participants will be placed with the Let’s Get Moving, Active Lifestyle, or Performance group based on testing results.

1. **Registration Forms***
   a. Los Angeles County Registration Form
   b. Los Angeles County Photo Consent
   c. Physical Activity Readiness Questionnaire (PAR-Q)
      i. If a participant answers “yes” to one or more questions, a physician’s clearance with signed approval to exercise is required before engaging in the program

   *All participant paperwork (registration forms, PAR-Q, contact information, etc.) is held in a 3-ring binder, and stored in the front desk of El Cariso Community Regional Park

2. **Blood Pressure**
   a. Equipment: Omron 10 Plus Series Upper Arm Blood Pressure Monitor
   b. After successfully completing registration forms, a student will take blood pressure with the following steps:
      i. Ask participant if they have consumed caffeine or have performed any physical activity prior to measuring blood pressure
      ii. Instruct the participant to sit still on a stable chair with back supported and feet flat on the floor for 5 minutes
      iii. Follow instruction on blood pressure monitor and take participant through protocol
      iv. Record findings on participants’ PAR-Q (blood pressure, heart rate, date, and time)
1. If blood pressure is less than 140/90 (both variables), and answered “no” to all PAR-Q questions, participants are cleared to exercise.

2. If blood pressure is greater than or equal to 140/90 (either variable), have the participant sit in a relaxed position for 5 minutes and re-test.
   a. If blood pressure is still greater than or equal to 140/90 (either variable), instruct the participant to obtain a physician’s clearance with signed approval to exercise is required before engaging in the program.

Participant Attendance Tracking

1. Attendance
   a. Pre-Assigned Number
      i. Upon registration, all participants are pre-assigned a number based on their fitness group.
         1. #1,000 through #1,999 — Let’s Get Moving
         2. #2,000 through #2,999 — Active Lifestyle
         3. #3,000 through #3,999 — Performance
      ii. This process assists in tracking participant attendance and testing results, and to maintain confidentiality during data collection.

   b. Check-In
      i. Participants are manually checked-in on each program day by a 100 Citizens student onto a sign-in sheet.
         1. Covers four weeks worth of attendance
         2. Organized by participants’ last names, who have attended the program within two months.

Program Procedures

Set-Up Procedures*

- **7:45am**: Program and Exercise Directors arrive and open all storage areas to have equipment readily available, and have student volunteer/intern sign-in sheets and exercise agendas prepared.
- **8:00am**: All students (Lead and Assistant Instructors) arrive to discuss the day’s agenda (agenda read) and tasks with the Directors. Exercise station set-up.
immediately follows. All students receive exercise agendas by 12:00pm on the
day prior to review.

- **8:30am**: 100 Citizens Fitness Program begins with a 7-minute warm-up led by a
  Lead or Assistant Instructor. Participant check-in process is provided by
  Directors, as well as Assistant or Lead Instructors.

- **8:37am-9:25am**: Four 12-minute exercise stations to target different muscle
  groups (upper body, lower body, core, and cardio) begin. Exercise stations led by
  Directors, Lead Instructors, and Assistant Instructors.

- **9:25am-9:30am**: 100 Citizens Fitness Program ends with a 5-minute cool-down
  led by a Lead or Assistant Instructor, incorporating stretching and breathing
  techniques.

- **9:30am-9:45am**: All equipment is returned to storage areas. Program and Exercise
  Directors provide feedback to Lead and Assistant Instructors on their performance
  during the Fitness Program.

*Program hours may vary per park.

**Exercise Programming**

1. **Group Philosophies**
   
a. **Let’s Get Moving (LGM)**

   Focus is on movement comprehension and general physical training. The
   movements will be easy to understand/instruct and be less complex in
   nature. Movements are primarily stationary in nature versus dynamic
   (stationary vs. walking lunges) due to lack of coordination and balance of
   lower fit individuals. Will incorporate power into some movements, such
   as squatting at a faster rate during the concentric phase, but not jumping
   for height. This is to reduce impact because most participants in this group
   are considerably overweight or lack the range of motion and muscular
   strength to complete such activities with ease. There is also a higher
   proportion of older individuals in this group. Will provide multiple levels
   for exercises, including what is intended for this group as well as what is
   intended for Active Lifestyle to challenge themselves (Let’s Get Moving:
   stationary single leg lunge, Active Lifestyle: alternating lunges).

   Sequencing of exercises will target antagonistic muscles followed by
   agonist as much as possible, which will be defined as supersets. Localized
   muscular fatigue will likely be an issue if compound work is incorporated.
   Compound work will be defined as consecutive exercises targeting the
   same muscle group. Exercises will be primarily body weight to emphasize
fundamental movements, but will use equipment to supplement routine to increase or decrease intensity.

b. **Active Lifestyle (AL)**
   Focus is on general physical training. Movements will increase in complexity from Let’s Get Moving, but will be relatively easy to comprehend for a beginner. Movements will be a combination of stationary and dynamic movements (stationary & walking lunges) to challenge all participants in this group appropriately. This group will incorporate power movements, such as jump squats and hopping. Power movements will be quantified by the number of times the feet contact the ground. The number of contacts per session will be limited to well below the NSCA’s guidelines for beginners, 80-100 contacts. Multiple levels for exercises will be provided at the level intended for this group, as well as what is intended for LGM and Performance so there is the option for challenge as well as regression when fatigue sets in. (Level 1: stationary single leg lunge, Level 2: alternating lunges, Level 3: Switch jumps).

Sequencing of exercises will incorporate both supersets and compound work. Body weight exercises as well as additional external resistance will be used in this group.

c. **Performance (P)**
   Focus is on mastery of basic movements and advancement into more challenging patterns. Additionally, there will be a higher demand on the physical capacity in this group. Movements will be more complex in nature and will require more exercise experience that would have been developed in the Let’s Get Moving and Active Lifestyle groups. Simple movements will also be incorporated, but to a lesser extent. Movements are primarily dynamic, require multiple movements and challenges for balance. Stationary exercises will be used when appropriate. Power is incorporated into movements when appropriate, such as jump squats and power push-ups. Multiple levels for exercises will be provided. The levels provide what is intended for Performance, Active Lifestyle and Let’s Get Moving so the option of regression is there when fatigue sets in (Level 3: push-up jacks, Level 2: standard push-ups, Level 1: modified push-ups).

Sequencing of exercises will contain a mix of supersets and compound work, with an emphasis on compound. Body weight will be used when performing power movements and external resistance will be used to increase the difficulty of stationary and dynamic non-power movements.

2. **Group Goals**
a. Prior to each semester and program, goals should be set based on the criteria to progress into the next fitness level. Goals can include movement comprehension, physical capacity goals, attendance for increased stimulus, etc. These goals should be specific to each group, and relayed to the participants in order to provide a greater sense of purpose. The Exercise Director will coordinate with the Assistant Exercise Director(s) to determine an appropriate goal for each group.

3. Exercise Intervention
   a. *Macrocycle*
      Long-term training cycle encompassing both mesocycles and microcycles. Macrocycles can last years in extreme scenarios, such as for Olympic athletes. For the purposes of 100 Citizens, the macrocycle will last anywhere from 10-14 weeks each semester. Pre and post testing weeks will not be included in this time period. It will be viewed as separate due to the volume of work provided during testing being very minimal and is only meant to be a benchmark of fitness. The overarching goals of fitness will be set here, which will determine the subsequent programming of each mesocycle and microcycle.

   b. *Mesocycle*
      Medium-term training cycle that usually lasts between 2-8 weeks. The length of the macrocycle will determine the length of the mesocycles. Each semesterly macrocycle will encompass 3 mesocycles with different goals in mind. These goals will typically follow this pattern, but are subject to change at the suggestion of the Exercise Director:
      i. *Mesocycle 1*: Moderate volume to build conditioning (ex: 35-second intervals per exercise, paired with simple movements)
      ii. *Mesocycle 2*: Increased volume to allow for more complex and intense movements to be learned (ex: 40-second intervals per exercise, paired with multiple exercises fatiguing the same muscle group in the same circuit)
      iii. *Mesocycle 3*: Return to initial volume to allow for an integration of complex and simple movements leading up to the post testing date

   c. *Microcycle*
      Short term training cycles typically 3-7 days in length, will be three days for the 3-day per week programs, and two days for the programs that host two sessions per week. Volume can be altered every microcycle or mesocycle. These should be increases and decreases in volume, programmed well in advance or altered due to an observed need for
change by the Exercise Director (ex: the final week before testing will include a progressive taper, in which there is a standardized reduction in training load where basic movements will be practiced at 30-second intervals per exercise. This is to ensure soreness will not factor into testing and there is an understanding of the testing variables).

4. Exercise Agenda Breakdown
   a. 7-Minute Warm-Up: a 100 Citizens warm-up is brief due to the limited amount of time per session, thus needing to be as effective as possible. To have an effective warm-up, the following principles must be followed:
      i. *Low intensity → High intensity*: The warm-up must allow participants to do exactly that, warm-up. Begin with movements such as light jogging to begin to raise the body temperature and heart rate. Couple this with low-demand movements such as walking knee hugs, carioca, skips etc. There should be constant movement.
      ii. *Simple → Complex*: All movement should be implemented in this manner. Simply put, start with the basic movements such as lunging before moving on to a lunge twist coupled with a skip. Assure that the most basic pattern is instructed first.
         1. A modified pattern may be the base for LGM.
      iii. *Movement Selection*: Before the warm-up is designed, the entire agenda must first be read. Only then will you be able to program the warm-up according to the movements to be performed that day (ex: if reverse lunges with a bag swing is an exercise in the lower body station, you will want to go over lunges in the warm-up with some type of rotational movement coupled with it).
   b. 12-Minute Cardiovascular Station: Our target in this station is to maintain an elevated heart rate for the duration of the 12-minute period. There are many ways to accomplish this, such as obstacle courses, continuous running or even circuits containing movements that do not heavily fatigue any compound movement pattern. An example of a cardio circuit is as follows:
      i.
      - Jumping Jacks
      - Quick Feet
      - Suicides
c. 12-Minute Lower Body Station: Emphasis on hinging and squatting


d. 12-Minute Core Station: Emphasis on carrying, planking, crawling and rotating/anti-rotating


e. 12-Minute Upper Body Station: Emphasis on pushing and pulling.

f. 5-Minute Cool-Down: Similar to the warm-up, the 100 Citizens cool-down is short. Gains in flexibility will likely not occur due to our cool-down, however, we use this time to return to levels of pre-exercise flexibility by stretching all major muscle groups used in that session.

5. Station Breakdown

a. Three circuits per station

i. If all three circuits are completed before the 12-minute period is over, cycle through the stations in order until time is called

b. Three exercises per circuit

i. Let’s Get Moving (LGM): Exercises will be instructed one at a time for greatest understanding. When appropriate, more than one exercise can be instructed in a row when not much comprehension needed (ex: quick feet, butt kickers, light jogging)

ii. Active Lifestyle (AL): Exercises may be instructed one at a time or in multiples depending on the complexity of the movement and possibility of overwhelming the participant with too many cues.
Familiar movements can likely be explained in couples, and new
movements one at a time.

iii. *Performance (P)*: Exercises will be instructed all at once with no
rest in between movements for most circuits. As movement
comprehension has been developed in the previous two groups,
less initial explanation will be required. Occasionally when new
movements are being introduced, or when the group struggles with
a particular movement, exercises can be explained one at a time.

d. Breaks: 30-second breaks are to be provided to the participants at the end
of each circuit. This can take place while the Lead Instructor begins
explaining the next circuit in order to most effectively use time.

*encourage participants to keep water bottles next to them*

6. Student Distribution

a. To have the program operating as envisioned, the ideal number of student
volunteers/interns on a daily basis is 28. However, this is an ideal situation
and it is likely that there will be considerably less students. If the amount
of students and volunteers is less than this number there must be an equal
distribution to each group. This would provide each station a Lead
Instructor with an Assistant Instructor across all three fitness group. This
number also includes a Program Director, Exercise Director, Program
Manager and a student intern to register new participants.

7. Essential Movements

a. The movements that we have determined as essential are listed below.
These essential movements should be addressed in each workout via
multi-joint exercises to get the most amount of work done in the shortest
amount of time

i. Pushing

ii. Pulling

iii. Squatting

iv. Hinging

v. Carrying

vi. Crawling/Planking

vii. Rotating/Anti-Rotating

8. Exercise Environment

a. The workout environment varies amongst 100 Citizens program locations
(from park-to-park). Some groups are led indoors while others are led
outdoors. The outdoor programs/groups are led on a variety of surfaces
such as grass, turf, asphalt and concrete. All areas are inspected for safety each day of operation.

b. Due to 100 Citizens being primarily an outdoor program, weather and time of day are considered. If applicable, the program will be moved indoors or cancelled due to extreme weather (heat, wind, rain, cold, etc.) at the discretion of the Program Director and Exercise Director.

Physical Fitness & Biometric Testing

1. Background/Group Pre-Establishment
   a. Prior to an 11-week intervention at El Cariso Community Regional Park in August 2015, 100 Citizens participants were pre-established amongst three groups (Let’s Get Moving, Active Lifestyle and Performance). Participants were placed within these groups based on the current Program Director or Exercise Director’s pure opinion, judgment, or observation at the time. In order to truly ensure all participants are being placed in the appropriate group, physical fitness norms were established amongst each group in Fall 2015. The norms aid in ensuring that participants are being appropriately challenged and that physical fitness progression is taking place.

2. Testing Protocols (Physical Fitness & Biometrics)
   a. Physical Fitness (to be used in the 100 Citizens Program as of August 2015):
      i. Core Endurance: Plank (Navy)
         1. Equipment: Plank Testing Apparatus, Accusplit Survivor A601X Stopwatch, Exercise Mat
         2. Participants will begin in the prone position, propped on forearms and toes
            a. Elbows shoulder-width apart
            b. Upper arms perpendicular to mat (90° at the elbow)
            c. Hands face down and fingertips touching to form a “V”
            d. Feet hip-width apart
         3. Maintain neutral positions from head to heels
         4. Have participant raise into a plank, rest reference rod on the lower back/hips (iliac crest), and clamp reference rod into place
a. This will serve as the practice repetition (do this quickly and accurately)

b. Rest participant for 30 seconds

5. The test is stopped when the participant voluntarily drops down, when the lower back dips below the reference rod for >2 seconds, or the reference rod is raised for >2 seconds

6. Record hold time in minutes/seconds. FOUR MINUTES MAX.

ii. **Cardiovascular Endurance: 12-Minute Walk/Run (ACSM)**

1. Equipment: Keson lightweight RoadRunner RR112 measuring wheel, Accusplit Survivor A601X Stopwatch

2. Participants will begin from the same start position, and walk, run or use a combination of both to cover as much distance as possible within a 12-minute period

   a. Announce time every minute until the 11-minute mark, after which a time update will be given at the 11:30 minute mark before “STOP” is called at 12 minutes

3. To keep track of laps completed, popsicle sticks will be administered as participants complete each lap (1,320 ft.)

   a. If popsicle stick is dropped by participant, student will run it to participant

4. When the 12-minute period is over, students will have participants stop and remain in place until their distance is measured using the measuring wheel

5. From the start position, a student will walk around the running course with the measuring wheel and retrieve the popsicle sticks each participant has

6. Record the number of popsicle sticks (laps) for each participant

7. Record the distance traveled in feet

iii. **Upper Extremity Muscular Endurance: Push-Up (ACSM)**

1. Equipment: Push-Up Counter and mat

2. Participants begin with body in the prone position, hands pointing forward and under the shoulder (shoulder-width apart)

3. High plank position for males, modified high plank for females (watch for hips to dip/raise)
a. Legs hip-width apart
b. Ankles dorsi-flexed and pressed into floor
4. Place push-up counter in between participant’s hands
5. Participant will practice 1-5 repetitions, then rest for 30 seconds
6. Complete push-ups will be when chest contacts Push-Up Counter, and full extension of arms in plank position (this will be denoted by a beep from the push-up counter)
   a. Count the total number of missed reps on scratch paper
   b. Subtract from total number of reps on Push-Up Counter
7. Maximal number of push-ups performed consecutively without rest (>2 second pause)
8. The test is stopped when the participant strains forcibly and/or is unable to maintain correct form for two repetitions
9. Record number of successful repetitions

iv. Lower Extremity Muscular Endurance: 1-Minute Squat (Top End Sports)
1. Equipment: National Public Seating 50 Series All Steel Standard Folding Chair
2. Participants will begin by having their back facing the chair in a position that is comfortable for them to squat (ex: feet shoulder-width apart, chest facing forward, and arms crossed over shoulders or directly in front parallel to the floor)
   a. Chair should be pushed against wall to secure it in place
3. Tester will position him/herself at a 45° angle in relation to participant for greatest view of movement
4. Participant will practice 1-5 repetitions, then rest for 30 seconds
5. The repetition will not be counted if contact is not made with the edge of the chair with their bottoms
6. Instruct participants to complete as many squats as possible in 1-minute without rest (>2 second pause)
7. The test is stopped when the participant strains forcibly, is unable to maintain correct form for two repetitions, or 1-minute elapses
8. Record number of successful repetitions

b. Biometrics (to be used in the 100 Citizens Program as of August 2015):
   i. Weight
      1. Equipment: Detecto 439 Balance Beam Doctor/Physician Scale with Height Rod
      2. Shoes off (no sweaters/jackets, and pockets empty)
      3. Adjust weight on rod until it is in equilibrium
      4. Record WEIGHT in POUNDS (to the nearest ½ pound)
   ii. Height
      1. Equipment: Detecto 439 Balance Beam Doctor/Physician Scale with Height Rod
      2. Shoes off (no sweaters/jackets, and pockets empty)
      3. Have participant stand straight with heels together
      4. Head level (chin parallel to floor)
      5. Record HEIGHT in INCHES (to the nearest ½ inch)
   iii. BIA/BMI
      1. Equipment: Omron HBF-306C BodyLogic Pro Hand Held Body Fat Monitor
      2. Press “on” button, press “set” for guest, and press “set” for normal
      3. Enter height, weight, age, and sex using the up/down buttons, and press “set”
      4. Have the participant stand with both feet slightly apart
      5. Place both hands on the monitory by correctly holding the grip electrodes
      6. While holding the monitor, extend the arms straight out at a 90° to the body
      7. Press the “start” button for the participant
      8. Record FAT MASS PERCENTAGE (top) and BMI (bottom)
   iv. Waist-to-Hip (Fall 2015 only)
      1. Equipment: MyoTape Body Tape Measure
      2. Have participant stand straight up, with feet slightly apart
3. Have the participant raise their arms high enough only to allow for measurements. Relax arms once tape is in position.

4. Tape is horizontal around the entire circumference and pulled snugly against the skin.

5. Locate the following areas to take measurements:
   a. Waist: Measure at the smallest site above the umbilicus and below the xiphoid process. If the participant does not have a natural waist, measure at the level of the umbilicus.
   b. Hip: Measure at the largest circumference around the gluteal muscles.

6. Take measurement facing side of participant.

7. Record measurements down to 16th of an inch (ex: 42” 4/16).

c. Student Training
   i. All students must engage in two 60-minute sessions of training prior to conducting testing with participants. The first training should consist of reviewing all testing protocols above, expectations, and proper use of testing equipment. The second training should consist of retention testing amongst students, testing knowledge of testing protocols and use of equipment. All feedback and training sessions should be provided by the Program Director, Exercise Director, and Program Manager.

3. Overview of Testing Days
   a. Participants
      i. Testing Day Agendas
         1. Pre and Post Testing should ideally take place over the span of three days (varies park-to-park). Each physical fitness test is dispersed and performed on specific days to ensure that there is no pre-exhaustion to any particular muscle group prior to performing an exercise. Depending on the number of participants per group, groups should be split into two (ex: Active Lifestyle and Performance as one group, and Let’s Get Moving as the other group). Testing days per group (Active Lifestyle/Performance and Let’s Get Moving) will be as follows.
**Active Lifestyle & Performance Testing Agenda Example:**

<table>
<thead>
<tr>
<th>Day 1 (Mon.)</th>
<th>Day 2 (Wed.)</th>
<th>Day 3 (Fri.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-In</td>
<td>Check-In</td>
<td>Check-In</td>
</tr>
<tr>
<td>Paperwork*</td>
<td>Paperwork*</td>
<td>Paperwork*</td>
</tr>
<tr>
<td>Biometrics*</td>
<td>Biometrics*</td>
<td>Biometrics*</td>
</tr>
<tr>
<td>Warm-Up #1 &amp; #2</td>
<td>Warm-Up #1 &amp; #2</td>
<td>Warm-Up</td>
</tr>
<tr>
<td>Plank Test</td>
<td>1-Minute Squat Test**</td>
<td>Make-Up of All Tests***</td>
</tr>
<tr>
<td>12-Minute Walk/Run</td>
<td>Push-Up Test**</td>
<td></td>
</tr>
</tbody>
</table>

* Only needs to be completed on one testing day
**1-Minute Squat Test & Push-Up Test may be performed in any order
***Tests performed in the same order as Day 1 and Day 2 to prevent fatiguing of muscle groups tested

**Let’s Get Moving Testing Agenda Example:**

<table>
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<th>Day 1 (Mon.)</th>
<th>Day 2 (Wed.)</th>
<th>Day 3 (Fri.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-In</td>
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*Only needs to be completed on one testing day
**1-Minute Squat Test & Push-Up Test may be performed in any order
***Tests performed in the same order as Day 1 and Day 2 to prevent fatiguing of muscle groups tested

ii. **Check-In**
   1. Upon arrival, participants will be directed to check-in amongst their respective groups

iii. **Paperwork**
   1. Adult Consent Form — English or Spanish
   2. Bill of Rights — English or Spanish
   3. Questionnaire — English or Spanish
      a. Fall 2015 only

iv. **Biometrics**
   1. Weight
   2. Height
   3. BIA/BMI
   4. Waist-to-Hip Ratio
      a. Fall 2015 only

v. **Warm-Up**
   1. Warm-Ups prior to physical fitness testing should be tailored specifically to what tests the participants will be performing that day. Two warm-ups, each lasting five minutes long, should be provided per group in the case of any late-comers

vi. **Physical Fitness Tests**
   1. All tests will be explained to the entire group by designated leaders (provided concurrently in both English and Spanish). Afterwards, participants will proceed to an individual student testers to begin
      a. 1-5 practice reps will be allowed to ensure correct form and understanding of test
      b. After practice reps are performed, participants will have 30 seconds of rest. Important cues will be provided during this time.

b. **Students**
   i. **Station #1: Check-In (four students)**
      1. One student assigned to each check-in station, and one Spanish-speaking students assigned as a floater to assist with translations. Upon check-in, participants receive a paperwork packet denoted with their pre-assigned number
(including participant testing flashcard, Adult Consent Form, Bill of Rights, and questionnaire*)

a. *Fall 2015 only

ii. **Station #2: Paperwork (two students)**

1. Two students (one Spanish-speaking) assigned to this station for participants to complete their Adult Consent Form, Bill of Rights, and questionnaire*

   a. *Fall 2015 only

iii. **Station #3: Biometrics (ten students)**

1. Four biometric measurements will occurring in this station. English and Spanish speaking students should be evenly dispersed, as well as an assigned floater to ensure proper flow of the participants. Below is the order of the biometric measurement stations:

   a. Weight (one student)
   b. Height (two students)
   c. BIA/BMI (four students, one per BIA)
   d. Waist-to-Hip* (three students, one per myotape)

   i. *Fall 2015 only

iv. **Station #4: Fitness Tests**

1. Leaders

   a. Participants will be split into two groups (English-speaking and Spanish-speaking). Two designated leaders (one English-speaking and one Spanish-speaking) will instruct the testing protocols to their respective groups by reading through the provided script. Designated leaders should understand the testing protocols in their entirety.

2. Testers

   a. Each student is paired with a participant (after having receiving instruction from designated leader). These students are responsible for ensuring that the testing protocols are being followed. Testers must be strict in following the testing protocols to have accurate assessment. Pre and Post Data will not hold value if the assessments are inaccurate.

   b. Students must ask participants if they have any questions before beginning the test
c. No motivation or encouragement can be provided while the participant is engaging in a test. This is to ensure uniformity and standardization during test conduction amongst various students.

d. Responsible for recording data legibly on participant flashcards and sign initials next to each test measured on flashcard. Required to include notes of any testing errors or important participant information that may be pertinent to those analyzing data, such as:
   i. A participant hurt his/her (body part) recently
   ii. Test was terminated early due to ________
   iii. Participant looks as if he/she does not understand instructions or test

e. Be sensitive to participants’ privacy (students may not announce results or private information).

Normative Data

1. Physical Fitness
   a. The norms established amongst each group are based upon the Fall 2015 Pre-Testing results from El Cariso Community Regional Park. Upon the completion of Fall 2015 Pre-Testing, averages were taken of each test amongst each group.
   b. The norms are subject to change based on an increase in sample size (more participants tested at El Cariso Community Regional Park and other 100 Citizens Program locations)

<table>
<thead>
<tr>
<th></th>
<th>Let’s Get Moving</th>
<th>Active Lifestyle</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plank</td>
<td>≤ 1:00 minute</td>
<td>1:01 - 1:45 minute</td>
<td>1:46+ minute</td>
</tr>
<tr>
<td>Test</td>
<td>Active Lifestyle</td>
<td>Performance</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Challenge Course</td>
<td>&gt; 6:00 minutes</td>
<td>≤ 6:00 minutes</td>
<td></td>
</tr>
</tbody>
</table>

2. Challenge Course

   a. The challenge course is a biweekly test administered to participants to track progress throughout the course of the intervention. It is solely available to Active Lifestyle and Performance participants, as they will have the requisite movement capabilities to successfully complete the test. The test consists of a 457 meter run, 10 push-ups, 10 mountain climbers, 10 squats and another 457 meter run. Distance for the lap was the length of one lap around the park running path.

3. Testing Into Groups

   a. In order to properly place a participant into a group upon registration or when a participant is interested in progressing to the next group, he/she must engage in the following four physical fitness tests (based on interest):
      i. Let’s Get Moving: Plank, 1-Minute Squat, Push-Up, and 12-Minute Walk/Run
      ii. Active Lifestyle or Performance: Plank, 1-Minute Squat, Push-Up, and Challenge Course

   b. The participant’s results must fall within three out of four fitness testing norms in order to be placed into their group of interest

   c. Participant testing upon registration or interest must be administered by a Program Director, Exercise Director, or Program Manager