

# Measurements of Success



Los Angeles County Lifeguard Association

# History of LA County Fitness for Life Program (FFL)

§ 1970

§ Mandatory pre-employment and periodic medical exams for all LA county safety personnel

§ 1992

§ Mandatory Medicals become voluntary for FF

§ Medical exams contracted out

§ FF Medicals drop from 2000+ to less than 100

§ 1998

§ IAFF/IAFC Wellness/Fitness Initiative (WFI) implemented

§ 2002

§ Medical Exams resumed at 6 contracted facilities

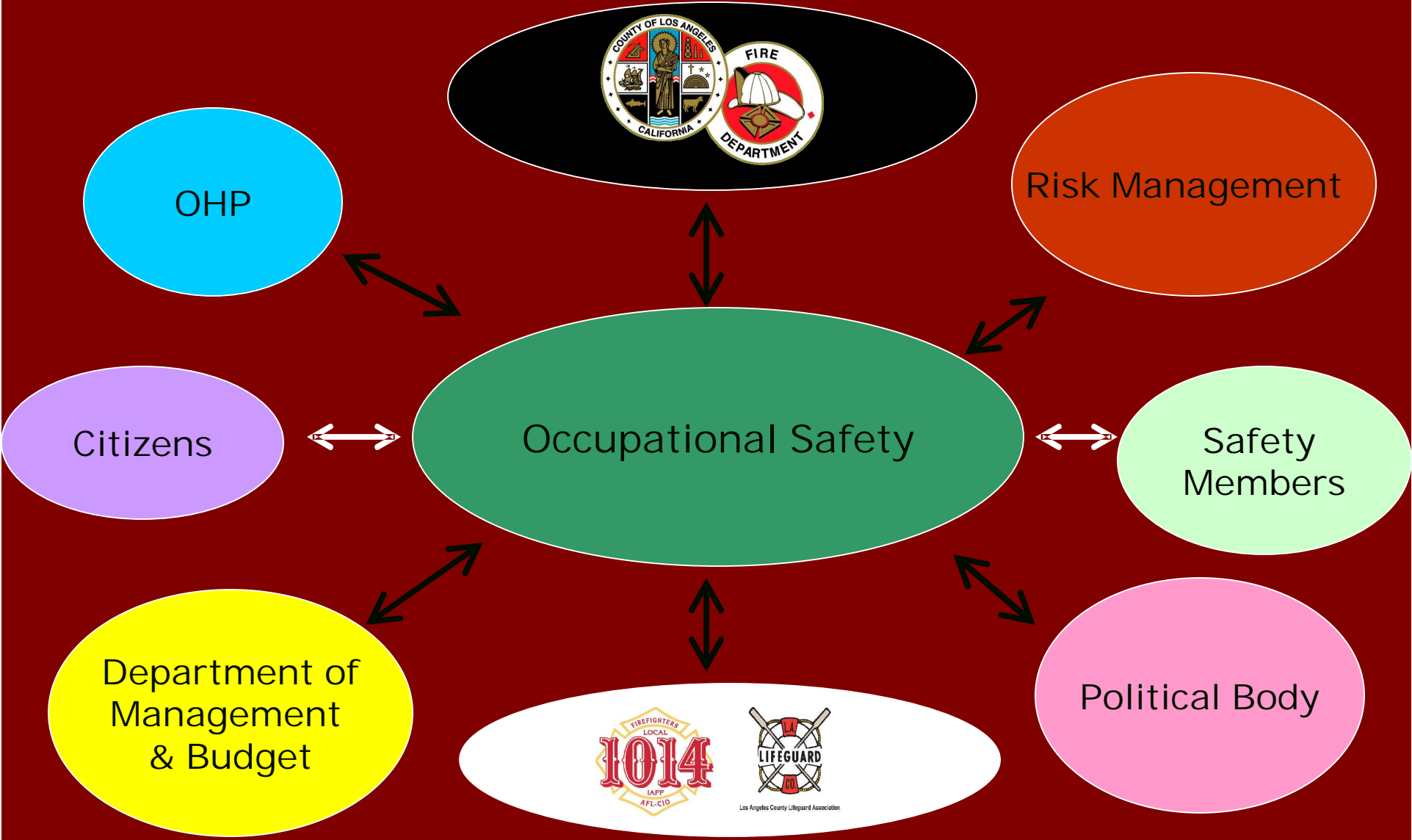
§ 2005

§ Approx 2000 Medical exams/year

§ Disappointing 40-50% compliance.

§ July 06' - Fitness For Life Program Implemented

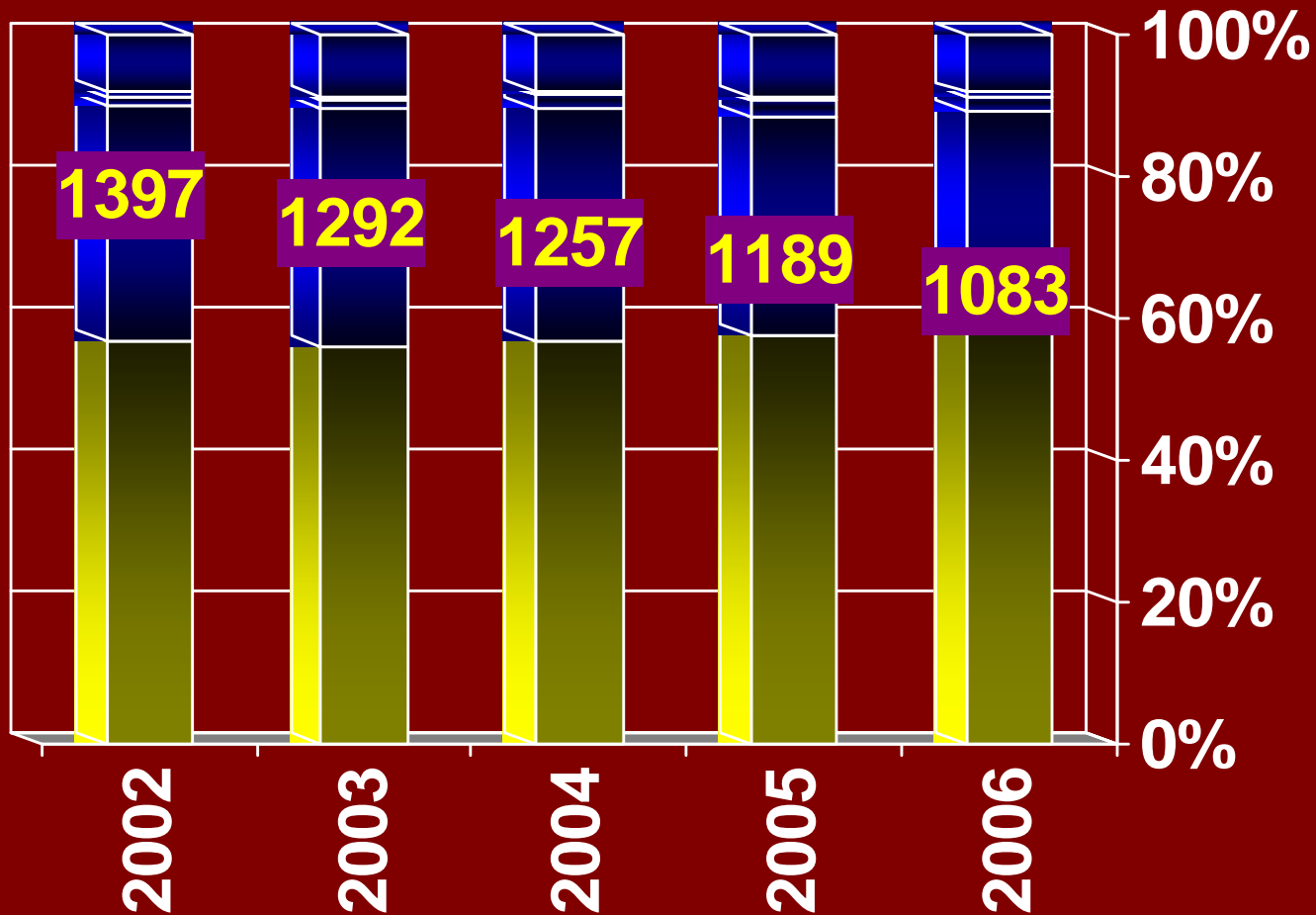
# FFL Program Stakeholders



# Goals of the FFL Program

- Improve the quality of life for safety personnel
- Create a working environment conducive to maintaining healthy and physically fit fire fighters
- **Reduce workers compensation costs and lost workdays**

# Worker's Compensation Claims



■ Total 24.5%

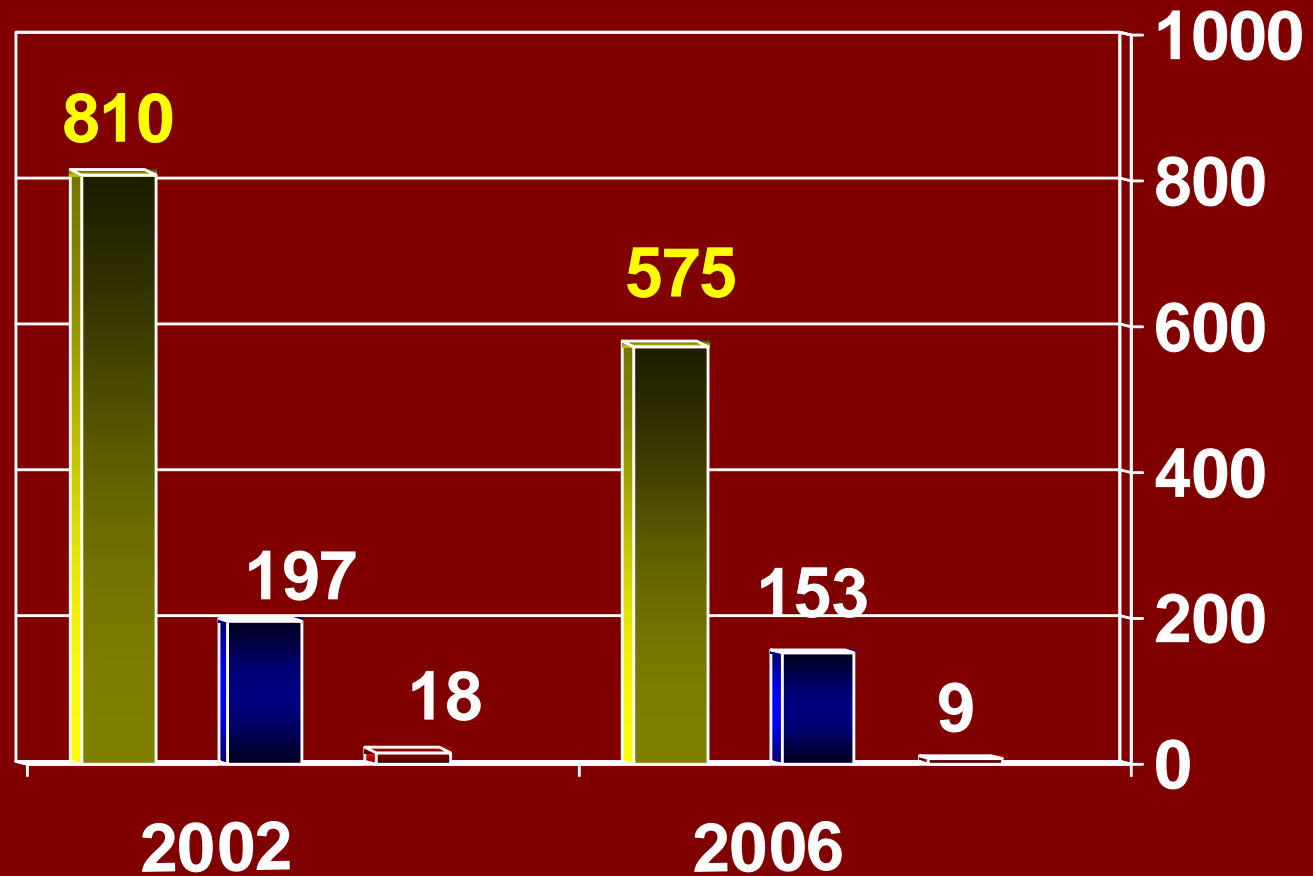
■ 05' 5.4%

■ 03' 7.5%

■ 06' 8.9%

■ 04' 2.7%

# Worker's Compensation Claims



 Sprains

 Diff. 29%

 Cardiac

 Diff. 50%

 Phy. Fit.

 Diff. 22.5%

# 3 Year FFL Program

Eligible members 3779

- q FY 2006/2007
  - q Medical exam
  - q 12 hours fitness related cont. ed.
  
- q FY 2007/2008
  - q Medical exam
  - q 12 hours fitness related cont. ed.
  
- q FY 2008/2009
  - q Medical exam
  - q 12 hours fitness related cont. ed.
  - q Achieve 40 VO2 max, 24 push-ups, 35 crunches

# Year One

- q FY 2006/2007

- q Medical exam

- q 12 hours fitness related cont. ed.

- q Program requirements

- q Alcohol and Drug

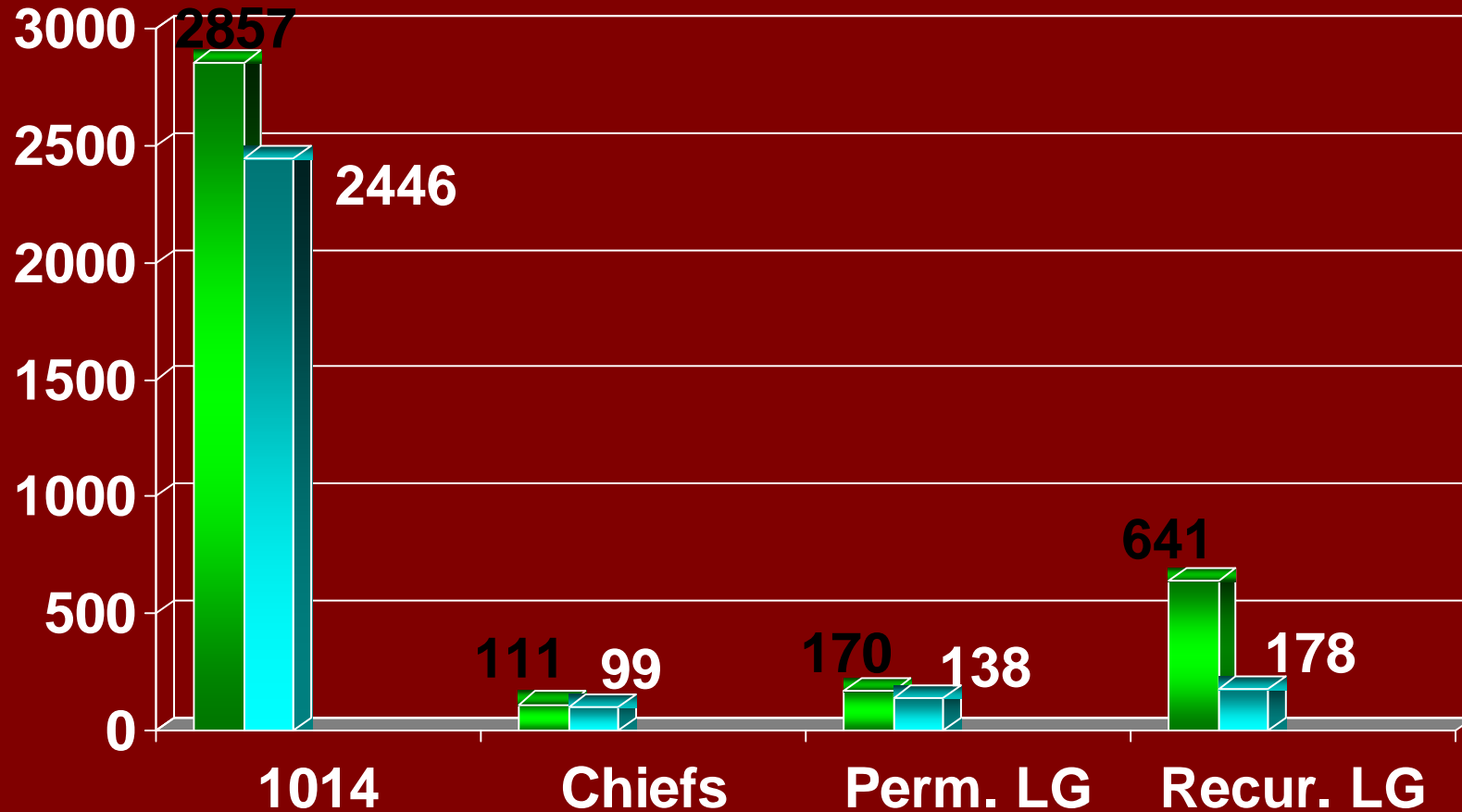
- q Stability Ball Training

- q Cardiovascular Fitness

# Year one – Program compliance

Medical and CEC requirements

n=3779



Total

86%

89%

81%

28%

# Year one averages

n=2815

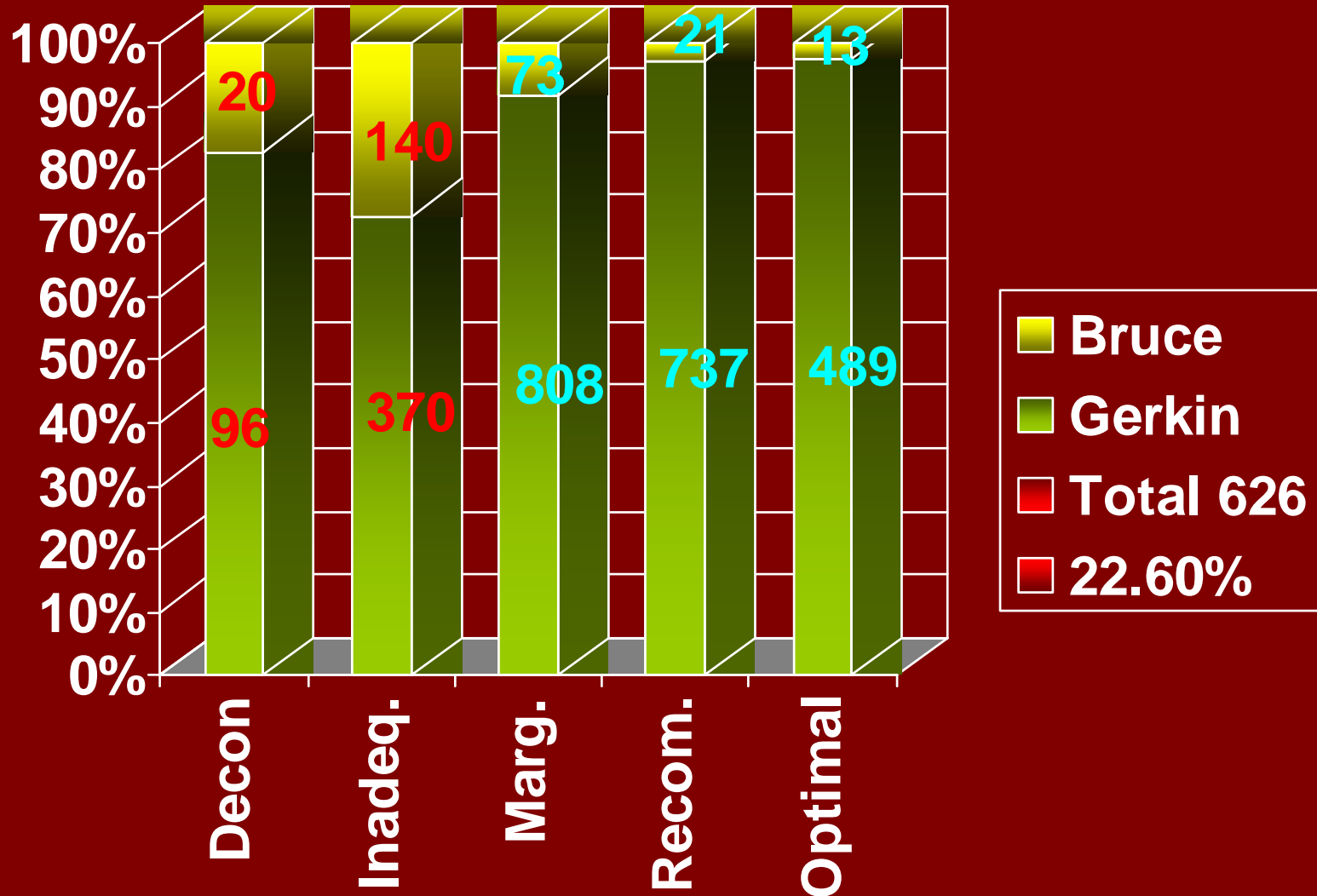
- Age - 41.7
- Height – 5'10"
- Weight – 196.7 lbs.
- % BF – 20.9%
- Treadmill
  - Gerkin – 12:05 ( VO2 Max of 44.7)
  - Bruce – 10:50 (VO2 Max. 39.6)
- Heart Rate – 178.9
- Push-ups – 33.3
- Curl-ups – 40.8

# How Aerobically Fit Does a Firefighter Need To Be?

VO2 max (ml/kg/min)	Gerkin Treadmill Time (Min:Sec)	Description
50+ Optimal	> 14:00	Capable of sustaining the most arduous firefighting activity tasks indefinitely with ample margin of reserve.
46 – 50 Recommended	12:230 - 14:00	Capable of sustaining the most arduous firefighting tasks for a prolonged duration with reasonable margin of reserve.
40 – 45 Marginal	11:00 - 12:30	Capable of sustaining the most arduous firefighting tasks for several minutes with a near maximal effort.
<40 Inadequate	< 11:00	Aerobic capacity insufficient to sustain the most arduous firefighting tasks such as stair climbing for more than 3 minutes.
<30 Deconditioned	< 7:00	

# Cardiovascular Fitness

n=2767 out of 2815



# Relationship Between Firefighting Suppression Tasks and Physical Fitness

‘While it can be argued that firefighters do not do sit-ups, push-ups and physical fitness test items during fire Suppression, the present investigation shows that the ability to perform these items is related to overall general conditioning and job related performance.’

(Ergonomics - Williford, Duey, Olson, Howard and Wang, 1999)

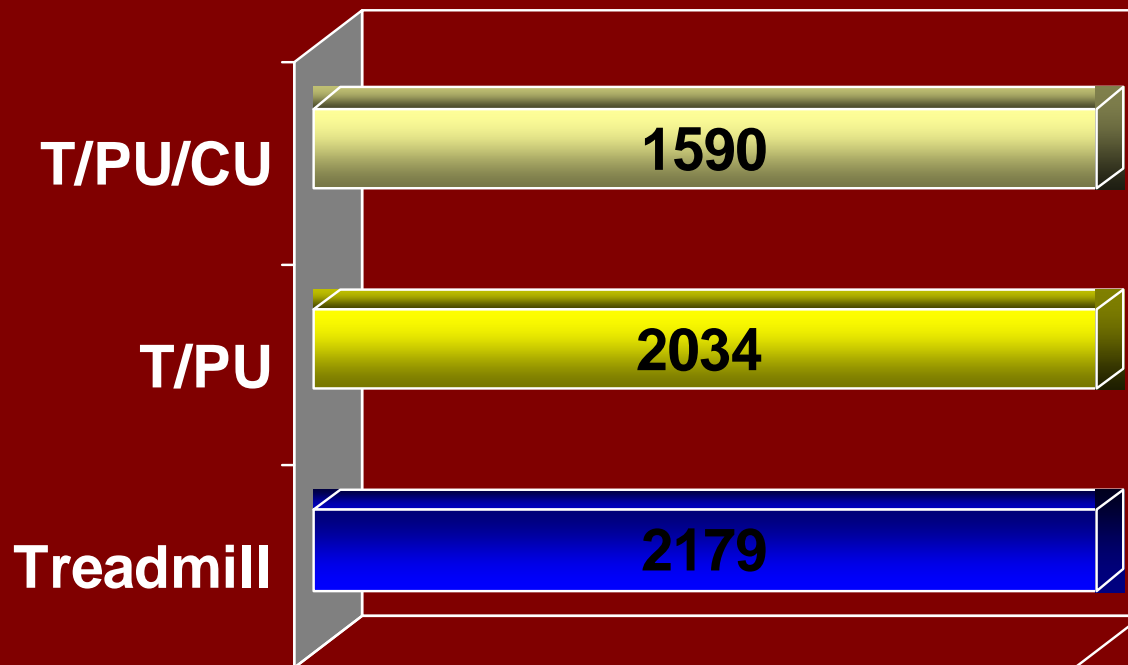
# Physical Performance Measures as Major Predictors of Physical Work Capacity in Firefighters

Push-ups, Sit-ups, chin-ups, and standing long jump reflect muscular strength, endurance and power – all attributes required to manipulate heavy loads.

(Medicine and Science in Sports and Exercise - Davis, Dotson, Santa Maria, 1981)

# All Three Fitness Requirements

n= 2767 out of 2815



■ 77%

■ 72%

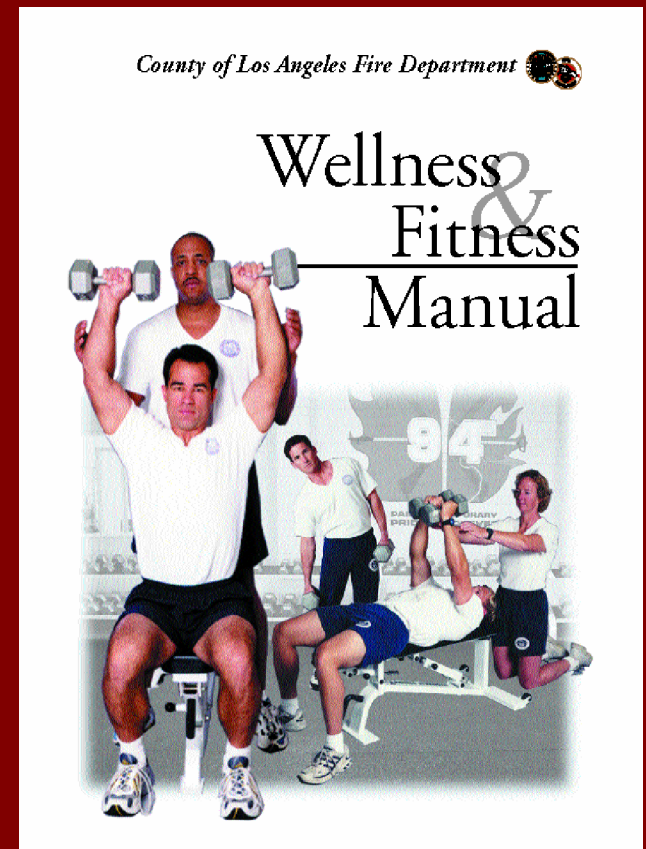
■ 56%

# All Three Fitness Requirements

- Age
  - Under 40 = 73%
  - 40 – 49 = 52%
  - 50+ = 33%

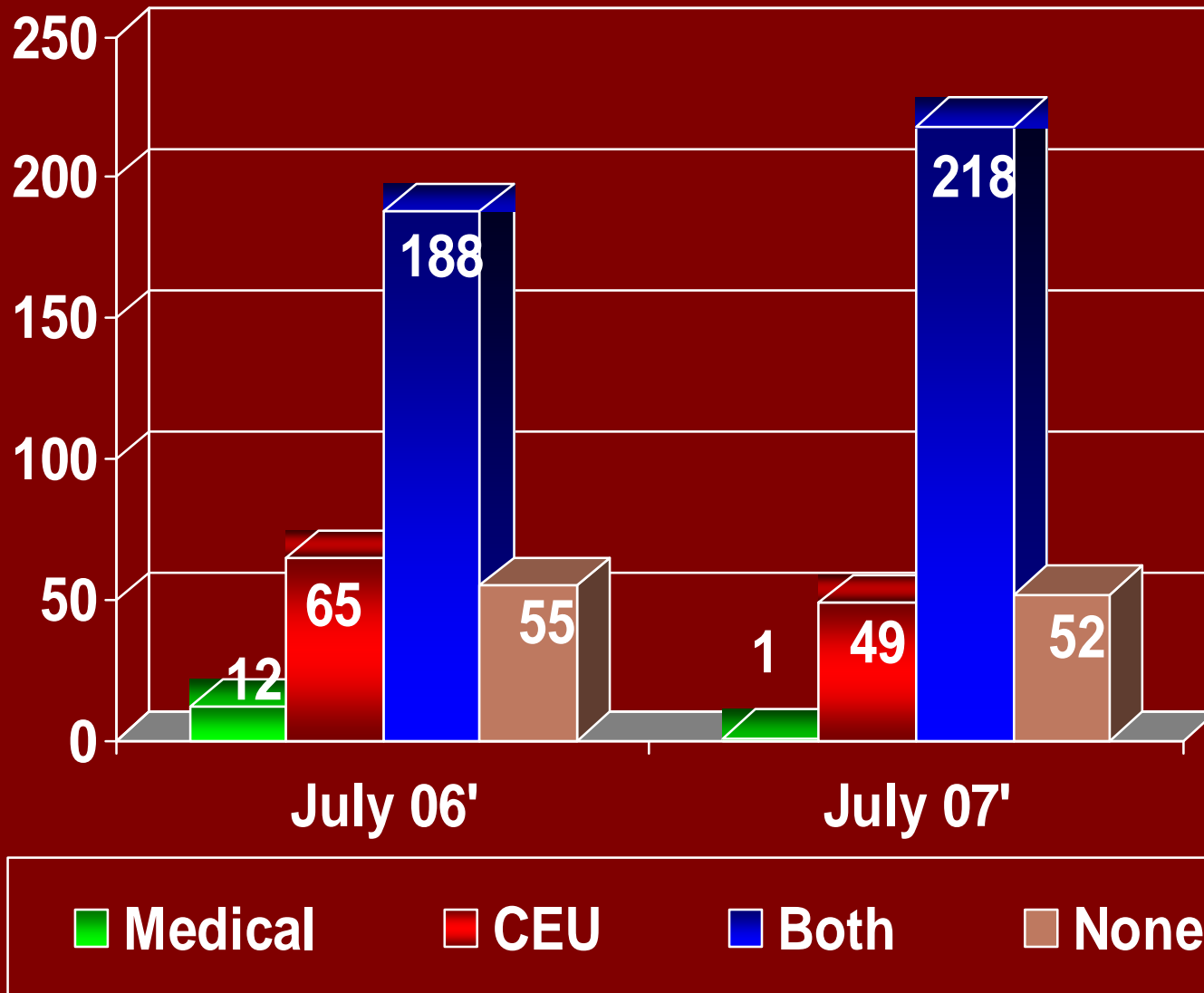
# Year Two

- q FY 2007/2008
  - q Medical exam
  - q 12 hours fitness related cont. ed.
    - q Program requirements
    - q Metabolic Syndrome
    - q Nutrition
    - q Designing a safe and effective exercise program



# Year Two stats

n=320



# Wellness and Fitness Initiative

## WFI

- October 2007
  - Third Edition of the Wellness and Fitness Initiative will be released
- New Fitness protocols
  - Alternative Push-up protocol
  - New Curl-up protocol
- New Strength Test
  - Jump Test

# New WFI Fitness protocols

## § Optional Tests

### – Modified Push Up Test (Push Up Stands)

§ This test was chosen as an alternative to the standard push-up for individuals with a history of wrist or shoulder injury.



# New WFI Fitness protocols

**Prone Static  
Bridge:**

Core Stabilization  
Test

Replaces Curl-up  
test



# New WFI Fitness protocols

- Optional Test
  - **Vertical Jump**
    - LEG POWER TEST
- Replaces Isometric Leg and Arm Dynamometer



# Discussion

- Are we going to comply with the WFI protocols?
- When and how are we going to implement these protocols?

# Key Points



Understand and communicate the Vision

Don't be confined by "the box"

Celebrate successful "small steps"

Ensure quality of care and confidentiality

Wellness must be a priority for all stakeholders involved

# Year Three

- q FY 2008/2009

- q Medical exam

- q 12 hours fitness related cont. ed.

- q Achieve 40 VO2 max, 24 push-ups, 35  
crunches