**Background**

- The MSPCA Angell is an Animal Shelter located in Boston, MA.
- Helping animals for 140 years
- Not affiliated with any other organization
- Open every day: closed only on holidays for any reason
- 7,000 animals taken in each year: dogs, cats, birds, rabbits, hamsters, guinea pigs, rats, etc.
- Approximately 4,000 dogs each year taken in

**Safewalk®**

Dogs were classified with a “color” system, in order to improve safety and reduce the fear of “pit bull type” dogs being euthanized, and to increase the likelihood that dogs would be adopted:

- Yellow dogs: strong, few if any behavior issues
- Orange dogs: medium training, behavioral problems such as pulling on the leash, mouthing, jumping, reactive towards other dog(s), etc.
- Red dogs: staff only; medical or other issues that require staff evaluation

**Analysis**

- Prior to Safewalk
- Post Safewalk

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Pit Bull Type Dog</th>
<th>Other Breed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake</td>
<td>110 (48%)</td>
<td>484 (98%)</td>
</tr>
<tr>
<td>Euthanized</td>
<td>25 (23%)</td>
<td>8 (2%)</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>30.7* days</td>
<td>18.5 days</td>
</tr>
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**Training Examples:**

- Training for all dogs while in the kennel on the Adoption Floor in “adoptable” behaviors such as sitting at the front, and following trained command
- 3-5 walks per day for all dogs, with rewards-based training during walks, as well as off-leash play time in the fenced-in yard
- Clicker-training of obedience skills, such as sit, down, leaveleash waiting, and roll overs, both on and off, and for pit bulls, in a weekly class taught especially for them
- Take puppies to socialization classes
- Take pit bulls to a series of obedience, Canine Good Citizen Prep, and/or outing classes taught by MSPCA instruction and attended by staff and owners (other than shelter dogs)
- Clicker-training to teach dogs to walk on a treadmill
- Clicker-training to teach dogs to pull a donated dog-powered scooter

**Need Input!**

Our hypothesis was that more pit bull type dogs were getting adopted, and staying longer to receive enrichment services, as a result of Safewalk. We took a quick look at dispersions by pit bull type dogs versus other breeds pre and post Safewalk. Results were not surprising: how could this be?

Safewalk, 12% more pit bull type dogs were being euthanized, and 14% more dogs were being adopted than pre Safewalk. Notably, higher euthanization rates and lower adoption rates also existed for non-pit bull type dogs post Safewalk.

Could the program really be working? Intuitively we felt that Safewalk had to be helping dogs, yet the numbers showed otherwise. More dogs were being euthanized, and the LOS was shorter post-Safewalk.

**Know Thy Data**

- and, the environment in which your data exists.
- Broad-specific legislation in Boston already in place; not the answer
- The large number of home foreclosures and an increase in rental units not allowing dogs during the time period led to more surrender and abandonments.
- MSPCA became the only open admission shelter in Boston in January 2009 (coincidentally when Safewalk began)

**Analysis (cont.)**

We also explored the 5G procedures with annotation. This allowed us to personalize graphs of output. As of SAS 9.3, the 5G procedures are part of base SAS and you do not need to have SASS/GRAF/GRAPH licensed.

- PROC SGPLOT
- PROC SGPLOT
- PROC SURVEYFREQ
- PROC TTEST
- PROC ANOVA

**Conclusion**

We do a good job at finding dogs new homes but as an “open admission” shelter, we take in lots of pit bulls, and these terrors need training and enrichment to flourish and to be adopted.

With the Safewalk program, pit bulls can withstand being homeless for longer periods, and get adopted at higher rates. SAS® analysis helped us visualize our data, and prove our hypotheses.

**Contact Us!**

Your comments and questions are valued and encouraged.

Contact the authors at:
- louise_hadden@abtassoc.com
- lbg@mspca.org

**Analysis**

- Both authors were familiar with statistics, but the audience for the information we wanted to share was not. After all, how many people know what a Bonferroni adjustment is? (Get alone what SAS produces it?)
- We needed a way to convey statistical information about SAFEWALK to people and to those in the animal behavior community, so that funding and staffing for the program was ensured.
- These statistics such as one above should not cut out at a board meeting, even with nice pictures of happy dogs to accompany them.

The primary SAS tool we used was ODS GRAPHICS with SASS/STATA. Including statistical graphics on a procedural data gave us easy to read depictions of what was happening with our data.

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We gratefully acknowledge the contributions of shelter staff and volunteers everywhere!