FIREPAW

THE FOUNDATION FOR INTERDISCIPLINARY RESEARCH AND EDUCATION PROMOTING ANIMAL WELFARE

ANALYSIS OF RESULTS FOR LODI MADDIE'S FUND COMMUNITY PROGRAM

FY2004-05
Summary Report

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ANALYSIS OF RESULTS FOR LODI COMMUNITY PROGRAM

Introduction

In its fifth program year (FY2004-05), Lodi has made significant progress in key program areas (Figure 1). The overall animal death rate per 1,000 people in the community dropped 48 percent. The death rate of animals that are either healthy or with treatable conditions per 1,000 people dropped 73 percent. Animal adoptions per 1,000 people increased 31 percent. The live animal release rate, a measure of the portion of shelter animals that are adopted or redeemed, was up 45 percent. In the baseline period the live animal release rate was 47 percent, while in the final program year the live animal release rate was 69 percent, indicating that more than two-third of animals in shelters were either adopted or redeemed.

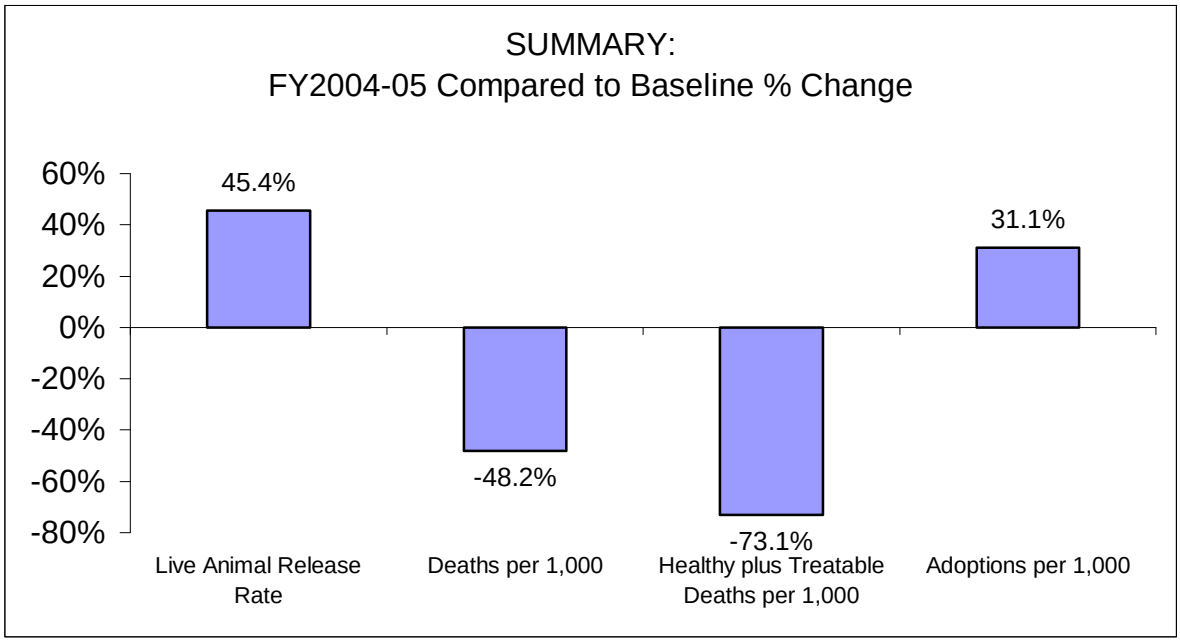

Figure 1

Total Death Rate

The fifth program year for Lodi included the last quarter of the 2004 calendar year and the first three quarters of the 2005 calendar year. The baseline period was the calendar year of 1999. In the last program year, total deaths of animals in Lodi dropped 46.2 percent compared to the baseline period (see Figure 2). When the size of the human population is taken into account, animal deaths dropped 48.2 percent from 25.7 to 13.3 deaths per 1,000 people. The progress in total deaths has been inconsistent, with deaths

dropping sharply in the second program year, and then increasing in the third year. It has taken until the fifth program year for deaths to return to the low level they reached in the third program year.

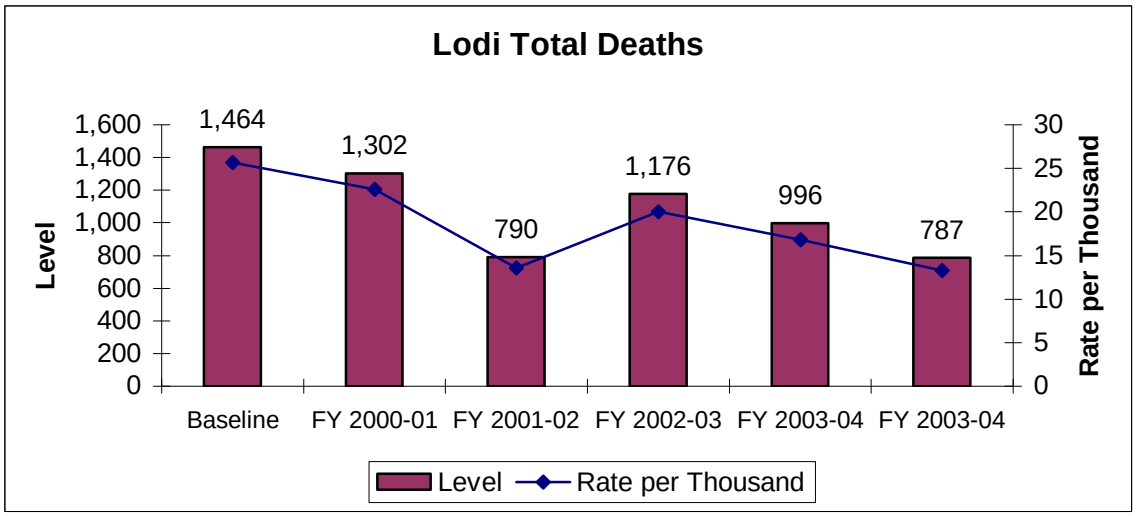

Figure 2

The quarterly death rate is shown in Figure 3. Deaths appear to peak in the third quarter and reach their lowest point in the first quarter, consistent with the pattern in several other regions of the country. In the latest program year, every quarter had a lower death rate than in the corresponding quarter from the prior year. In three of the four quarters of the last year, deaths were at their lowest rate for that quarter in any year, with the second quarter of 2005 being the exception.

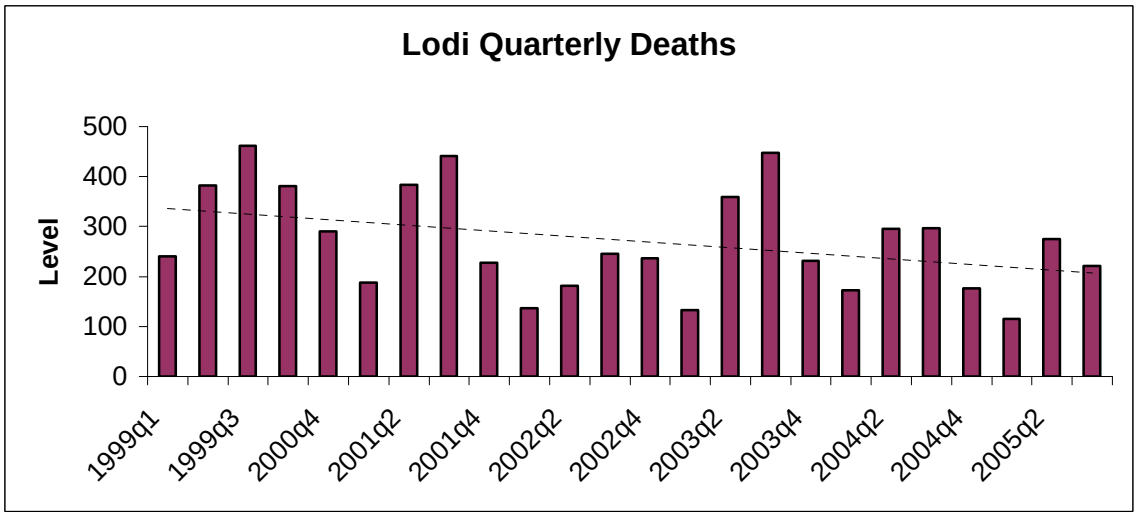

Figure 3

The decline in the death rate in the last program year met the program's goal (see Figure 4). Deaths have met their goal in four of the five program years, with the third year being the single exception.

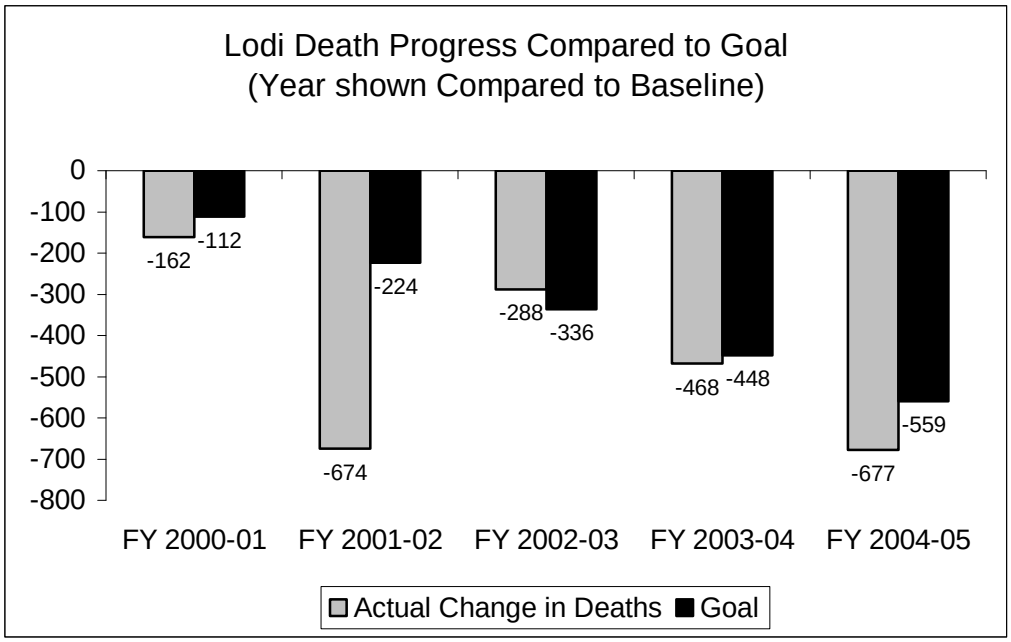

Figure 4

Healthy Animal Deaths

Healthy animal deaths declined 98.6 percent in the last program year, declining almost to zero from 559 deaths in the baseline period (see Figure 5). Taking into account population size does not change the picture significantly, with healthy animal deaths declining 98.6 percent, per thousand people in FY2004-05. The largest decline in level was in the first program year, when healthy animal deaths declined from 559 to 145. Healthy animal deaths stayed between 100 and 200 for the next two program years, then dropped to 91 in year 4, then to 8 in the fifth program year. While this technically is not quite the program goal of no healthy animal deaths, it comes very close to achieving this difficult goal.

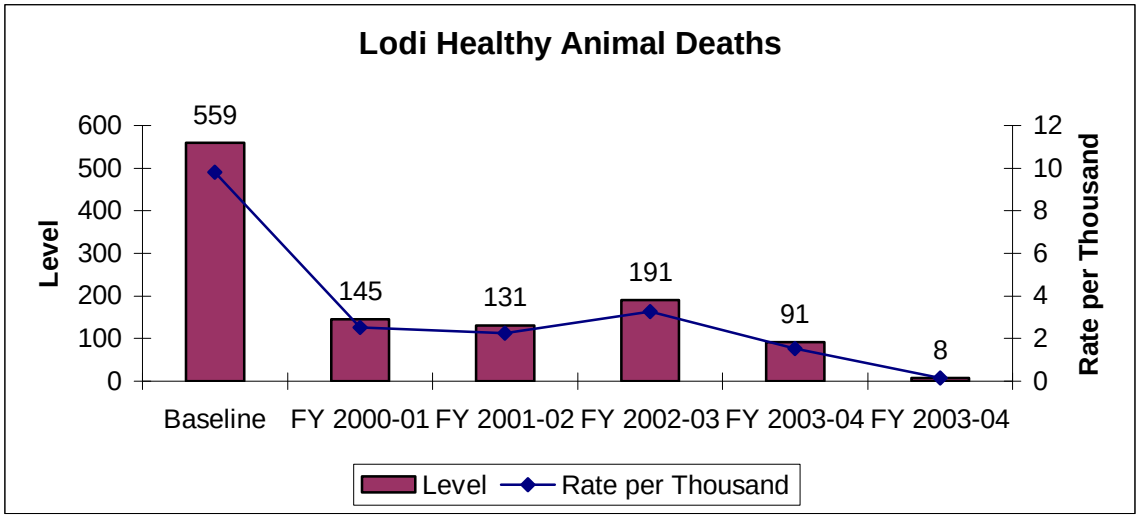

Figure 5

Quarterly healthy animal deaths indicate that Lodi did in fact achieve its goal of eliminating all healthy animal deaths in the final two quarters of the program (see Figure 6). The third quarter of 2005 achieved zero deaths despite being the quarter that normally has the highest level of healthy animal deaths of any quarter. This suggests that Lodi may have achieved a sustainable level of zero healthy animal deaths starting in the last two quarters of the program.

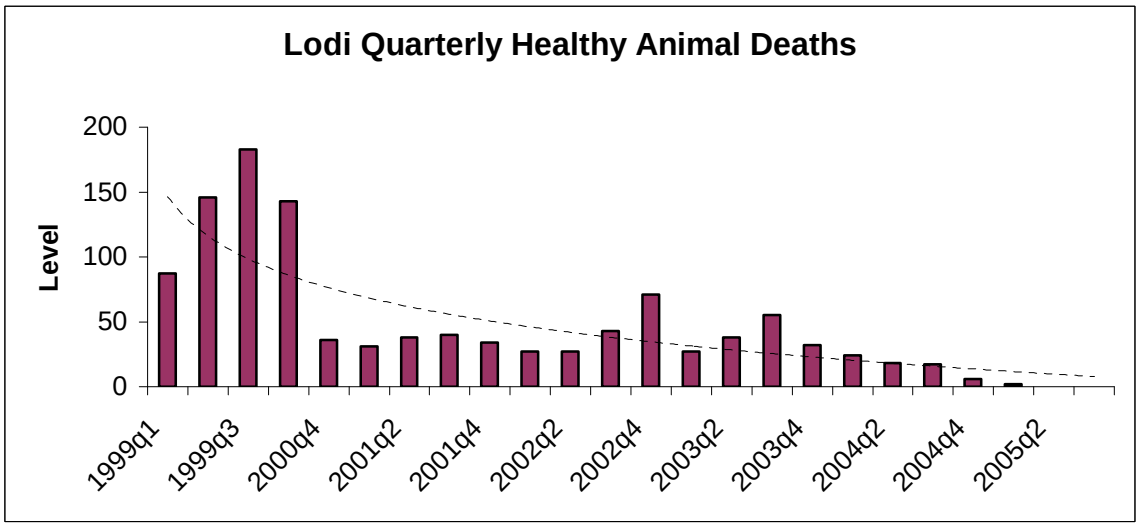

Figure 6

The reduction in healthy animal deaths was close to the Maddie's Fund program goal for the two years that had a program goal established (see Figure 7). In the fourth program year, the reduction in healthy animal deaths exceeded the goal slightly. In the final program year, healthy animal deaths were reduced to a level just short of the

program goal. The goal of a reduction of 559 deaths implies zero healthy animal deaths, which was achieved in the last two quarters, but not for the full program year.

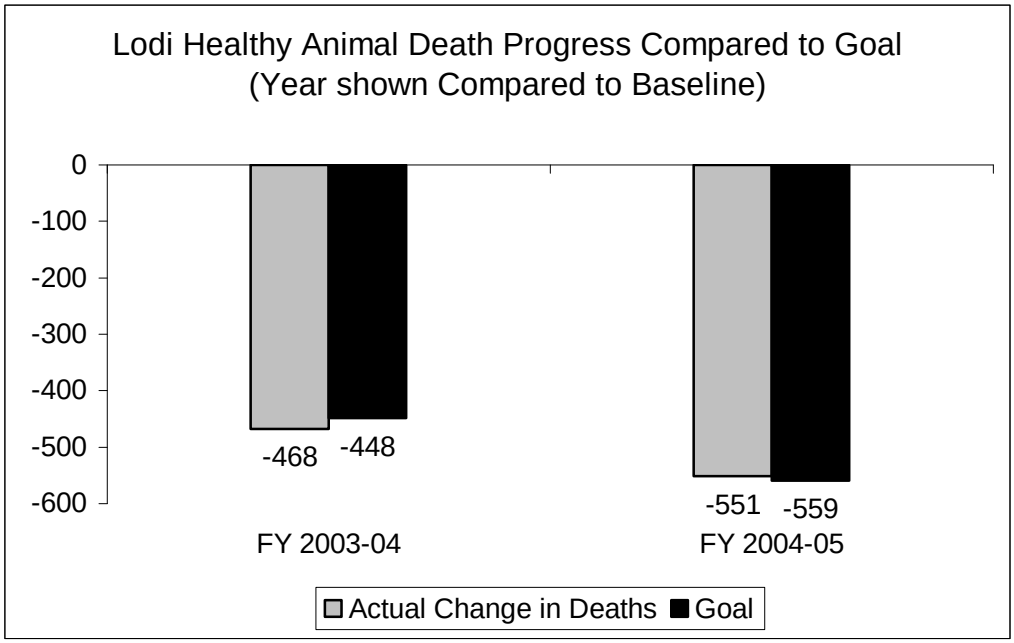

Figure 7

After uneven progress in the first three years, by FY2004-05, Lodi had almost achieved its goal of eliminating all healthy deaths (see Figure 8).

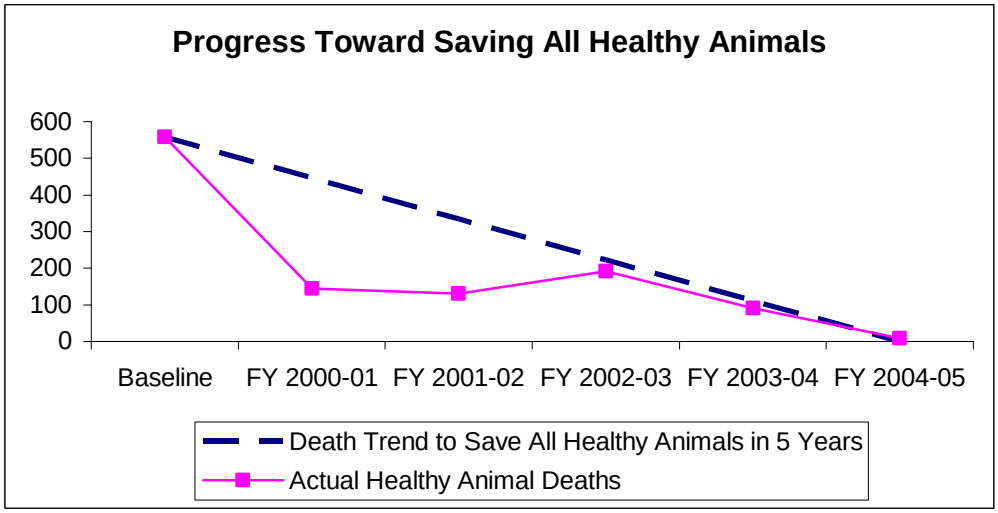

Figure 8

Healthy animal deaths and total deaths moved in the same direction every year, with declines in every year except FY2002-03, when both types of death increased (see Figure 9). The first program year had the strongest healthy animal death decline in level, but the

percentage decline was larger in the last year due to the lower base (denominator) for healthy animal deaths. In three of the four years which showed a decline, healthy animal deaths decline more rapidly than total deaths, suggesting that the community was able to target most of its efforts on these animals.

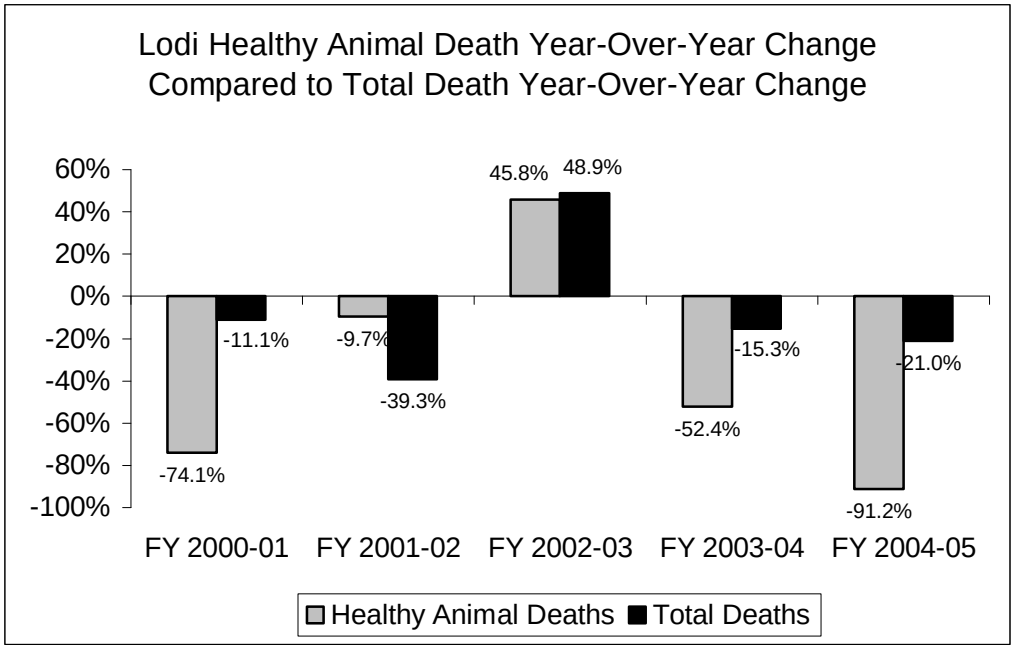

Figure 9

Healthy and Treatable Animal Deaths

Healthy and treatable animals deaths combined declined 72.0 percent from 872 deaths to 244 deaths between the fifth program year and the baseline period (see Figure 10). After accounting for the size of the human population, the deaths of healthy and treatable animals combined declined 73.1 percent to 4.1 deaths per 1,000 people. As with other types of death, the progress was uneven, with a temporary increase in deaths during the third program year, following a particularly strong decline in the second program year. By the fifth program year, deaths were at their lowest level of any period.

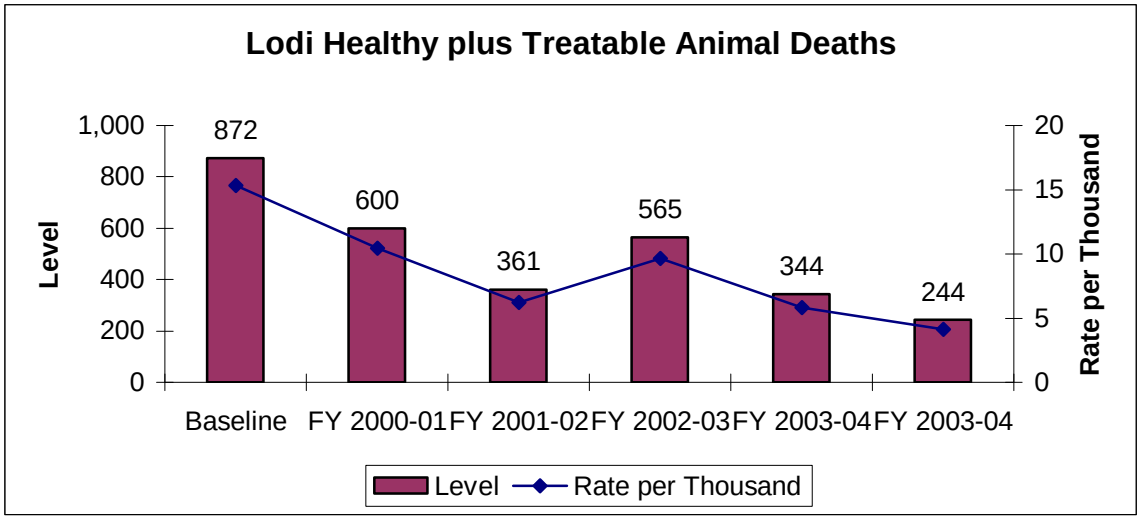

Figure 10

When healthy and treatable animal deaths are combined, the progress in death reductions appears even more impressive than when looking at healthy animal deaths alone. There have been no specific goals set for healthy and treatable animal deaths in Lodi. However, some other recently-initiated Maddie's Fund Community Programs have had a target of eliminating all healthy and treatable animal deaths in a ten year timeframe. Lodi is on track to surpass this goal by several years. At the current rate, healthy and treatable animal deaths would be eliminated within seven years, or just two more years from the current reporting period (see Figure 11).

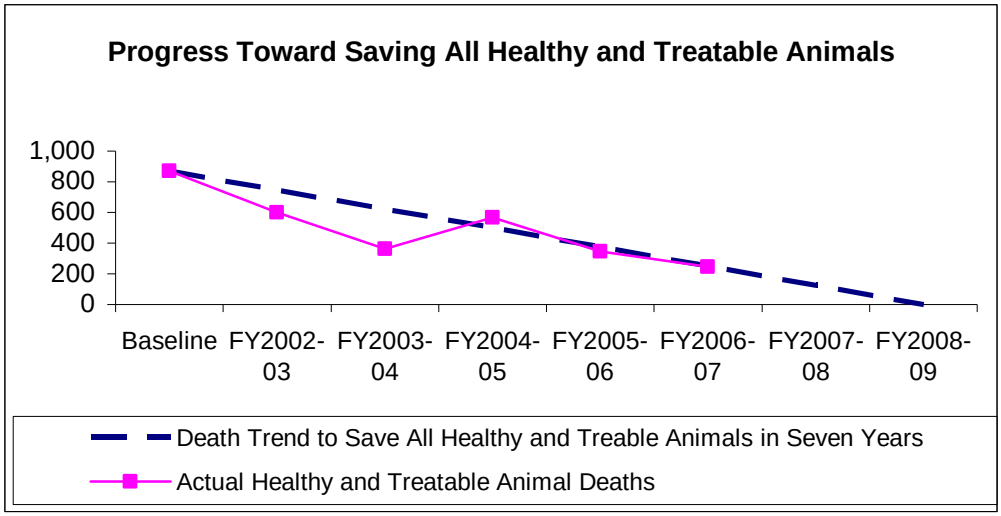

Figure 11

Deaths declined in every category, with healthy animal deaths declining the most, followed by treatable animal deaths (see Figure 12). Unhealthy & untreatable animal deaths declined as well, with the decline being even larger than what is shown when population growth is taken into account.

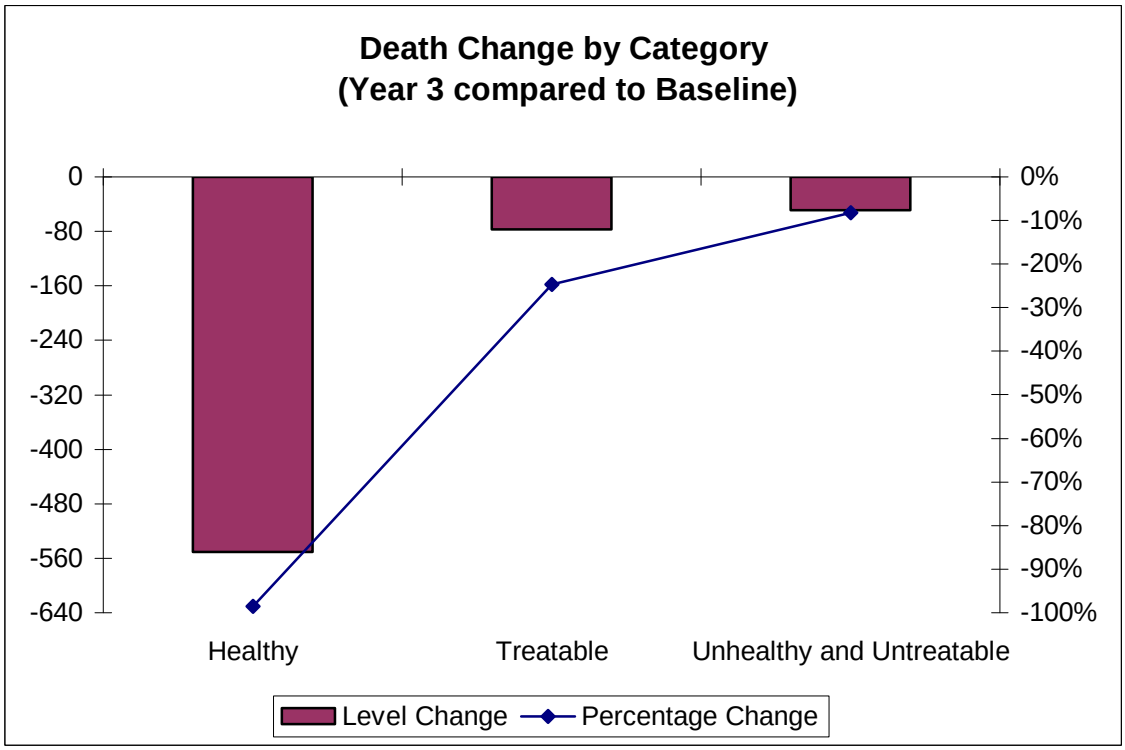

Figure 12

Treatable animal deaths and unhealthy & untreatable animal deaths showed very dramatic differences for dogs and cats, with strong declines for dogs but an increase for cats. This was particularly true for treatable animals, where dog deaths were reduced more than 80% (see Figure 13). For healthy animal deaths, the decline was stronger for cats. In fact, for cats the goal of eliminating all healthy animal deaths was achieved in the final program year. However, for dogs, a few healthy animals were still killed in the last year.

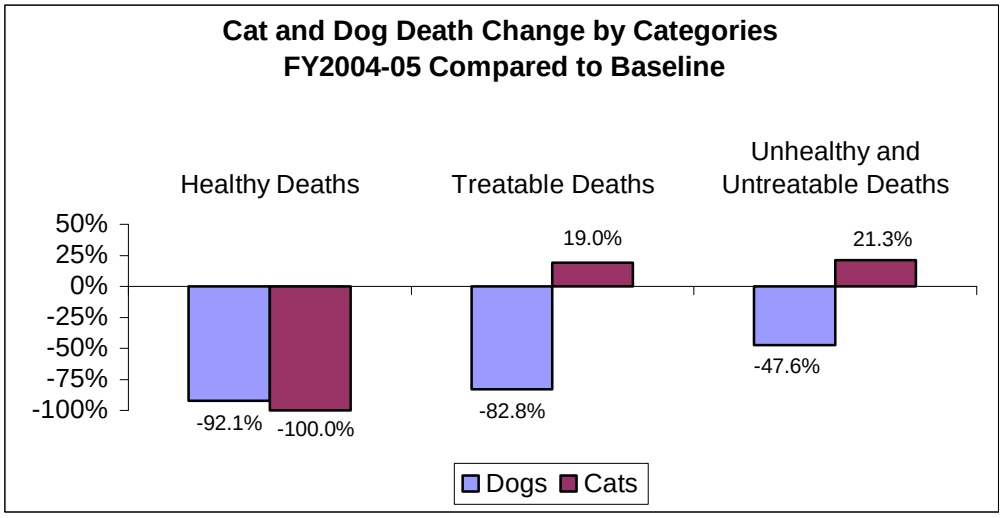

Figure 13

Adoptions

Adoptions increased by 36.1 percent from 1,032 to 1,405 between the baseline period and the fifth program year (see Figure 14). After adjusting for the size of the human population, adoptions increased 31.1 percent, from 18.1 animals adopted per 1,000 people, to 23.7 animals adopted per 1,000 people. Adoptions peaked in the second program year at 1,558 animals and then gradually declined for the following three program years.

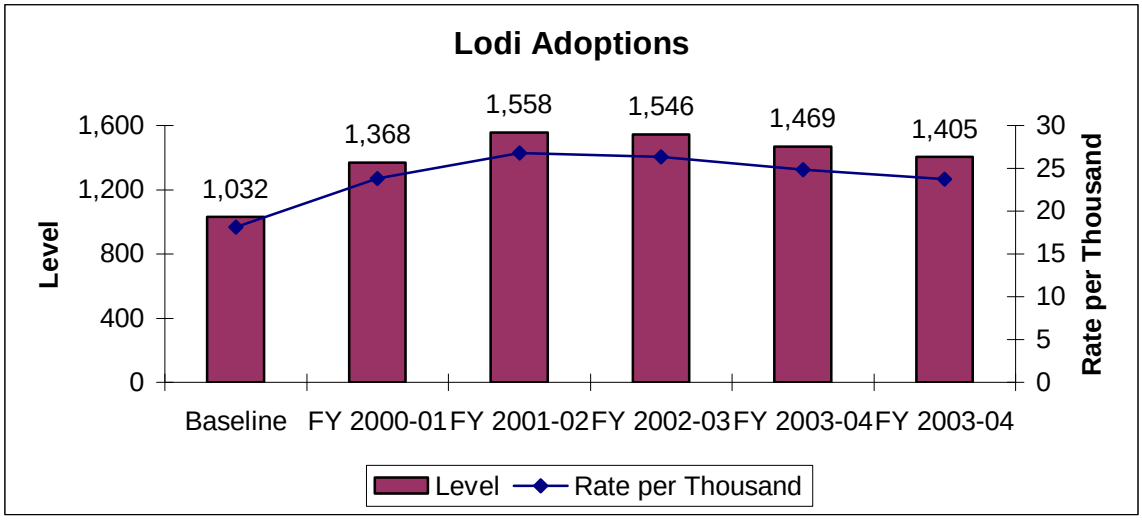

Figure 14

Using quarterly data, the adoption peak appears to occur in a later period than when looking at annual data (see Figure 15). The highest level of adoptions over the full program was seen in the third quarter of 2003. The third quarter on average had the highest level of adoptions, although the peak has varied from year to year, with less than half of the years peaking in the third quarter. Three of the four quarters in the last fiscal year had lower adoptions than the same quarter in the prior year, with the final quarter (2005, quarter 3) being the exception.

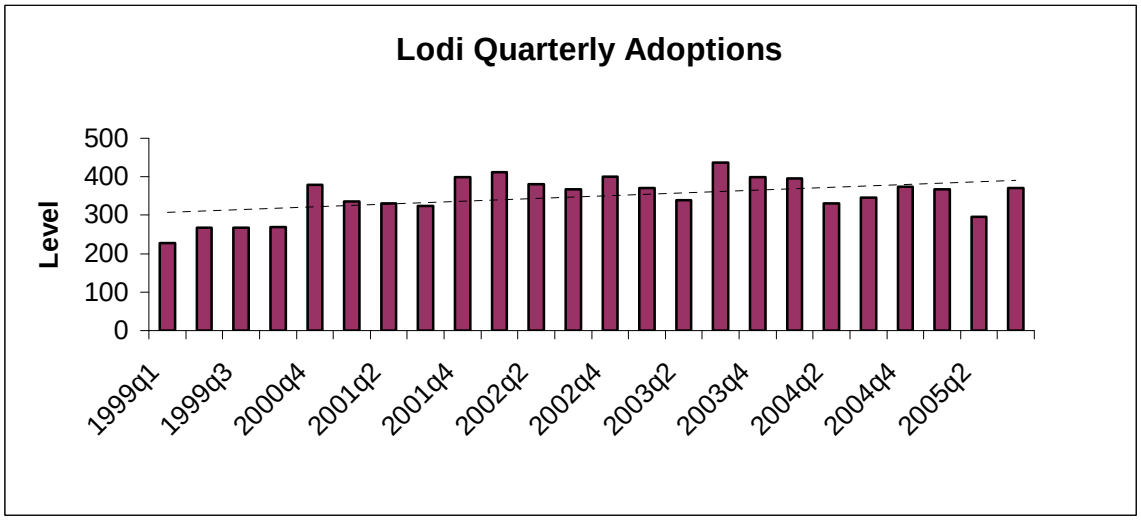

Figure 15

For most of the duration of the Lodi program, total adoptions have been above or at least close to the goal (see Figure 16). For the first three years, adoption growth was far larger than the goal. In the fourth year, it was slightly short of the goal. In the final program year, adoptions declined and fell significantly short of the goal.

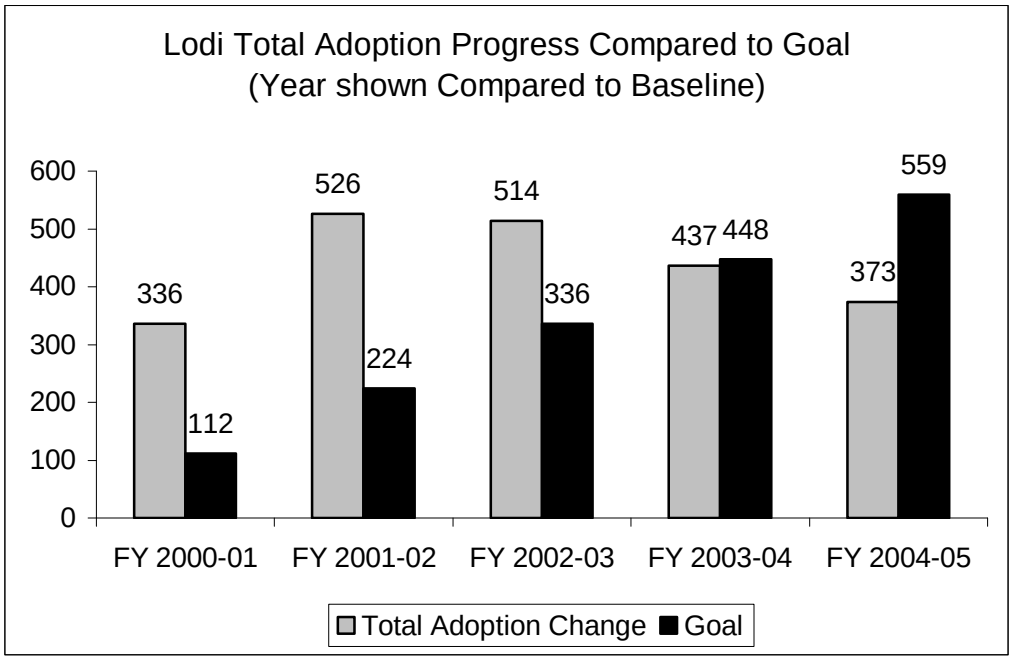

Figure 16

Adoption guarantee organizations (AGO) achieved their adoption goal in the first two program years (see Figure 17). By the third program year, AGO adoptions were slightly short of goal. In the final two years, AGO adoption levels fell far short of goal, with the level of adoptions declining in year four, then staying roughly flat in the fifth year.

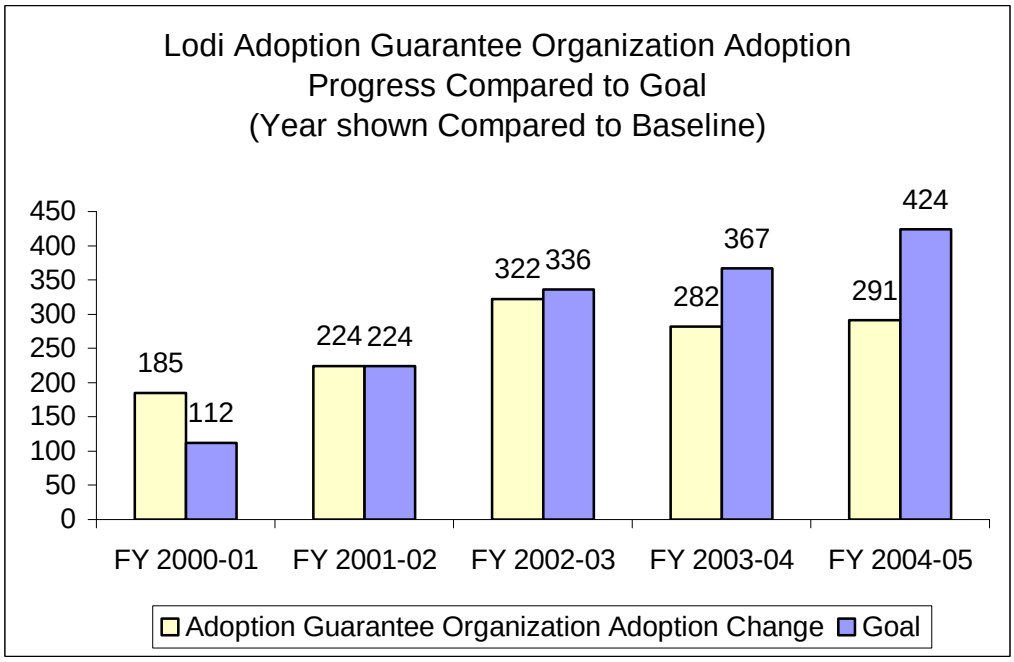

Figure 17

Both animal control and adoption guarantee organizations have increased over the full period, with more than three quarters of the total gain coming from adoption guarantee organizations (see Figure 18).

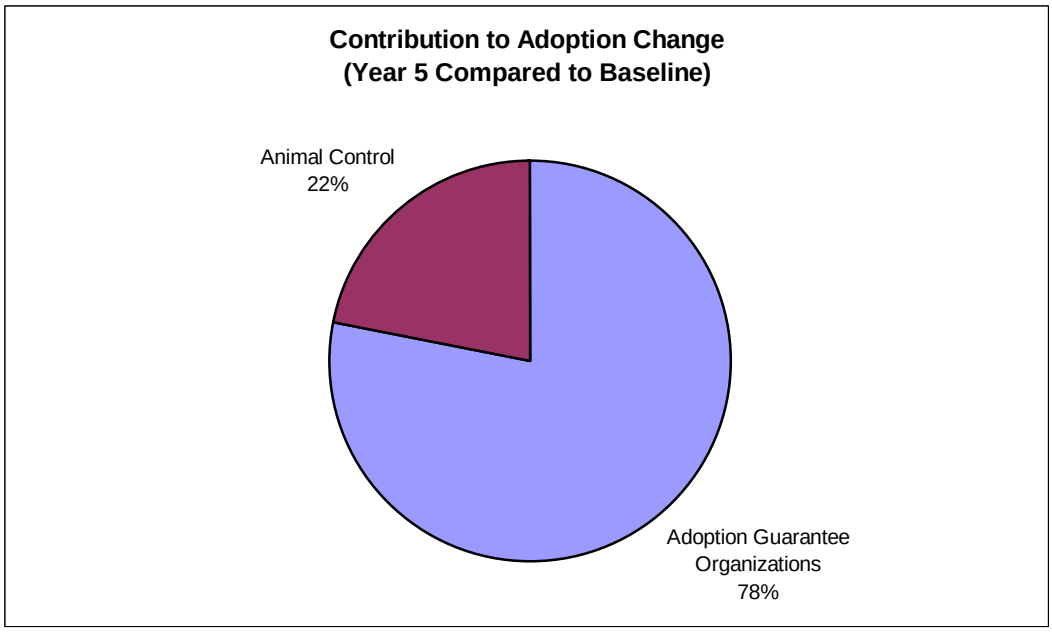

Figure 18

Most adoptions came from adoption guarantee organizations in every year of the program (see Figure 19). This is not typical for Maddie's Fund communities, with most communities having the majority of their adoptions coming from animal control, at least at the start of the program. This suggests that the adoption guarantee organization efforts were relatively strong in Lodi.

Both animal control and adoption guarantee adoptions peaked in the middle of the program, with animal control peaking in FY2001-02 and adoption guarantee organizations peaking in FY2002-03. AGO adoptions declined only slightly following their peak, while animal control adoptions deteriorated much more.

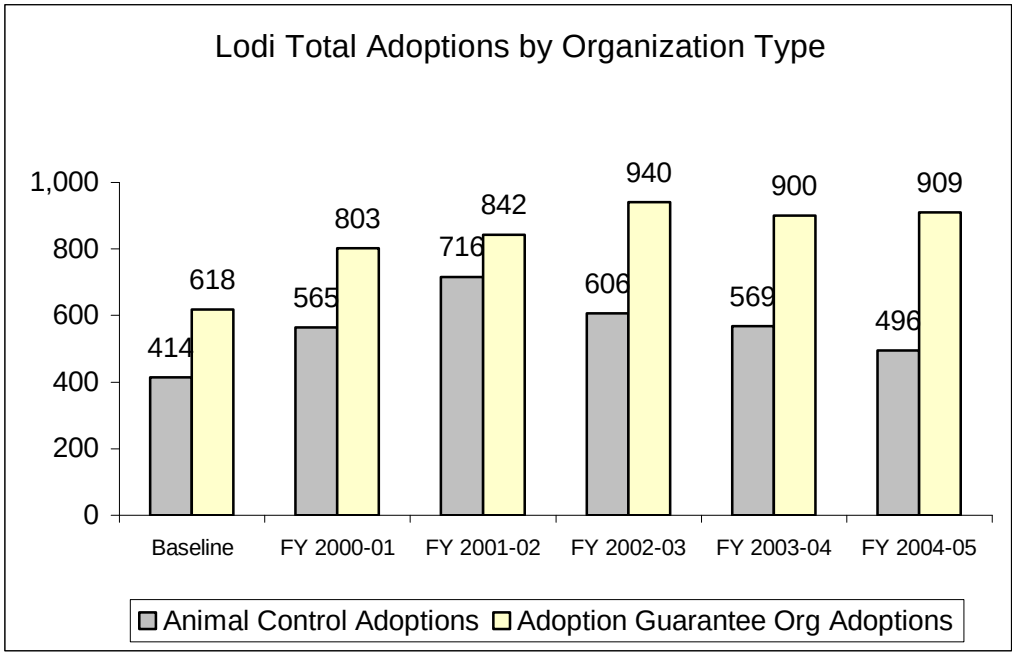

Figure 19

Total Intake

Total shelter intake increased 4.6 percent over the full program. However, virtually all of this increase can be explained by population growth. When adjusted for population growth, intake rose 0.8 percent, from 47.8 to 48.1 animals per thousand people (see Figure 20). Intake increased in the first two years of the program, then declined for the next three years, returning to slightly more than its initial level.

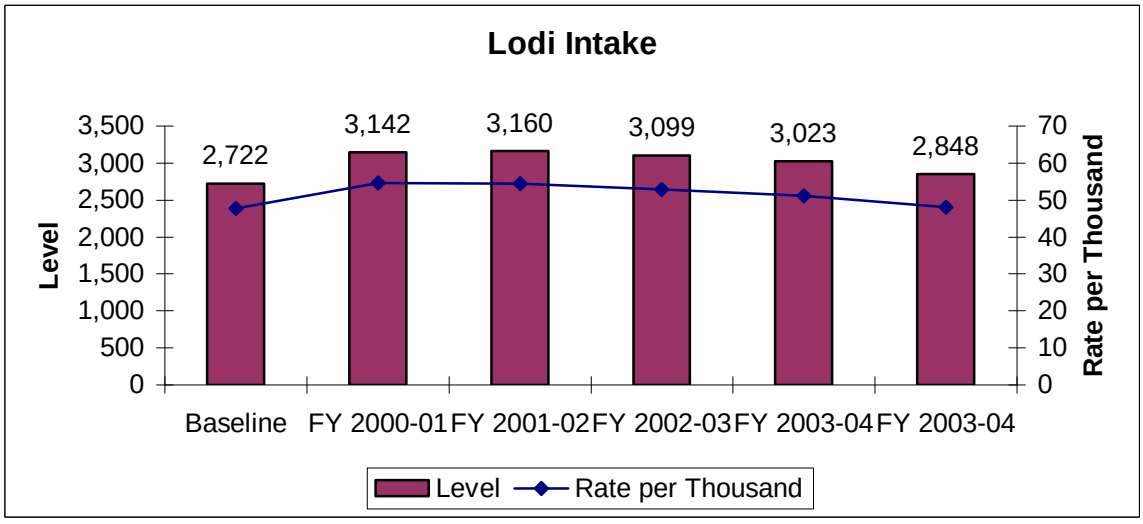

Figure 20

Quarterly data shows a strong seasonal pattern, with little if any obvious long-term trend (see Figure 21). In the latest fiscal year, intake was down from the prior year in three of the four quarters. The last quarter (2005, quarter 3) had a slight increase in intake from the prior year.

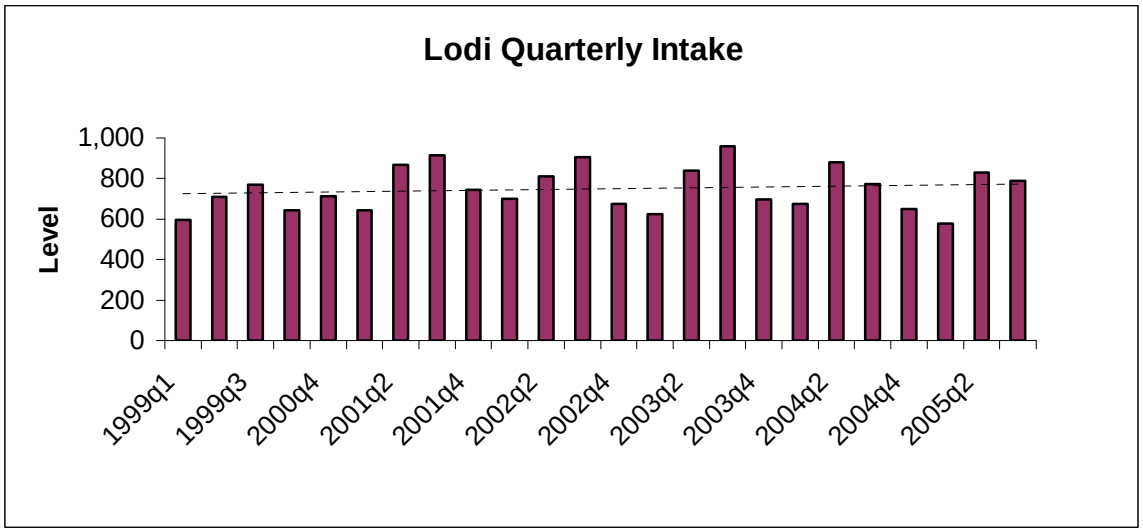

Figure 21

Estimated healthy animal intake jumped down, then up, in the first two program years, then stabilized at roughly 67.5 percent, the same level seen in the baseline period. (see Figure 22). This implies that roughly two-thirds of animals coming into the shelter are estimated to be healthy, and that this percentage has stayed fairly consistent. It is important to note that animal categories are not recorded at the time of intake, therefore the categorization of animals is estimated based on outcomes. More specifically, healthy animal intake is estimated as: healthy animal deaths + redemptions + adoptions. However, animals at the shelter can change in their health status over time and adopted/redeemed animals may not always be healthy. To the extent that these two situations occur, the estimate of healthy animal intake may be inaccurate. For example, if due to shelter improvements fewer animals deteriorate in health conditions at the time of euthanasia, this will cause healthy animal intake to appear to increase, even if the condition of the animals at the time of intake has not changed.

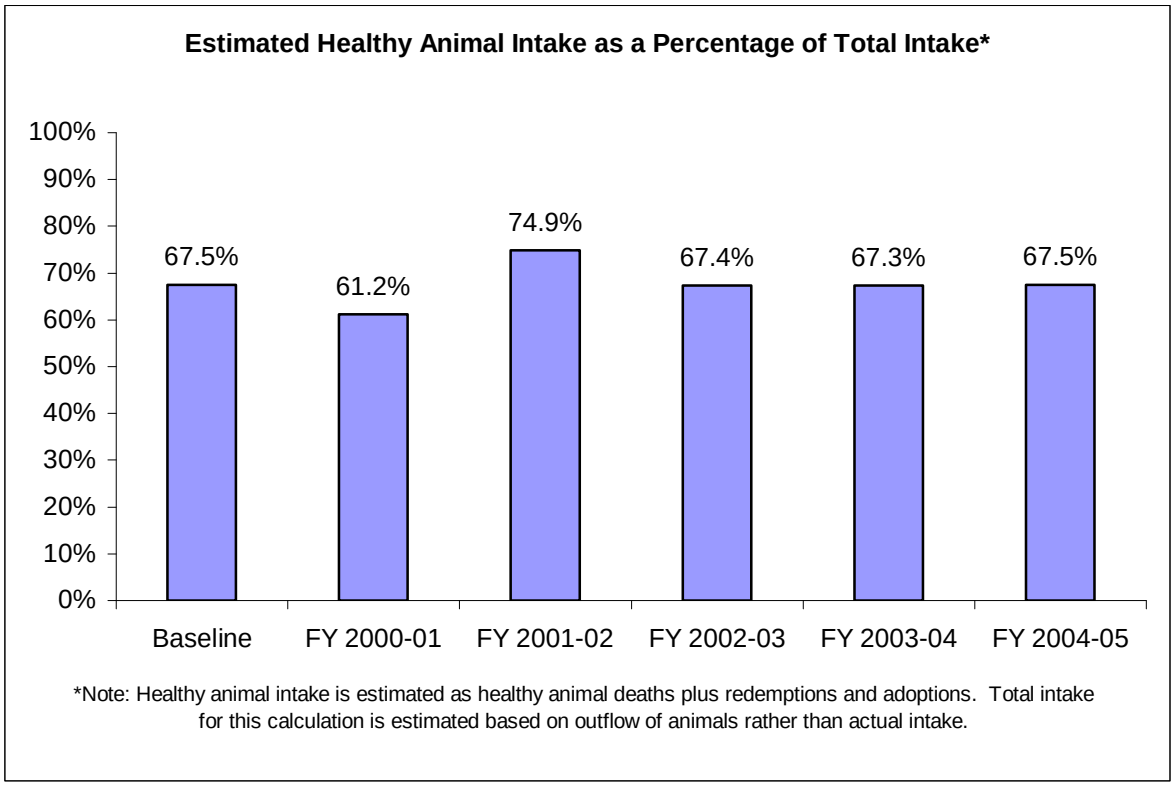

Figure 22

No spay/neuter procedures were funded in the last program year and no spay/neuter goal was set. However, it is interesting to note the relationship seen between intake and spay/neuter procedures (see Figure 23). Spay/neuter procedures jumped sharply in the first program year, then peaked that same year. Though it declined every year since its peak, the spay/neuter level stayed above the baseline rate until FY2003-04. Intake showed a similar trend, rising in the first year, then gradually declining. This is the opposite of what would be expected since an increase in spay/neuter surgeries should decrease intake. However, it is consistent with prior work by FIREPAW suggesting that spay/neuter changes have a slow and gradual effect on intake. The decline in intake in FY2003-04 may reflect increases in spay/neuter procedures from several years earlier.

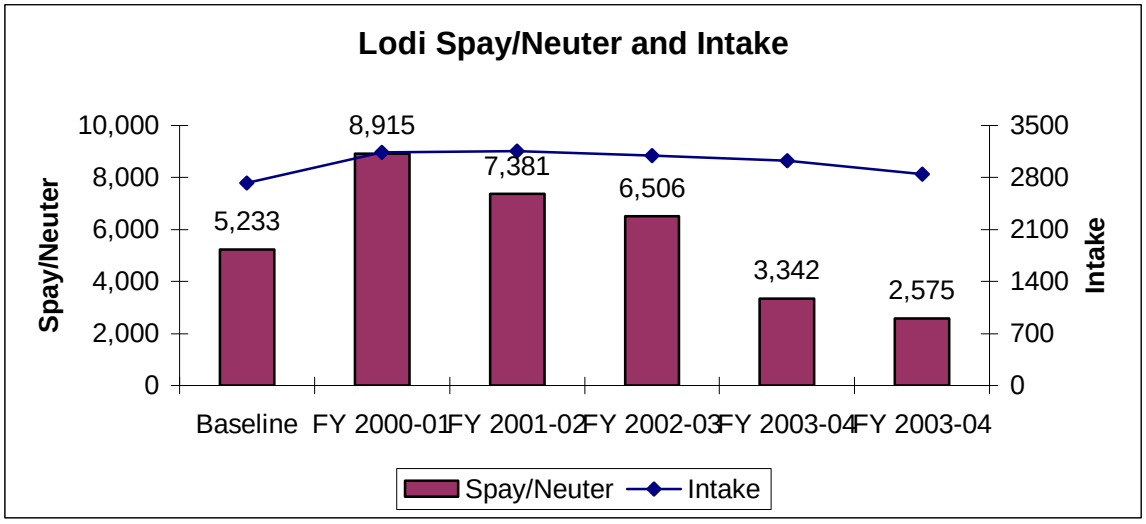

Figure 23

Intake was virtually unchanged for dogs but increased slightly for cats. Adoptions were almost the same for cats and dogs. While healthy deaths declined slightly more for cats than dogs, total deaths declined much more rapidly for dogs than cats (see Figure 24).

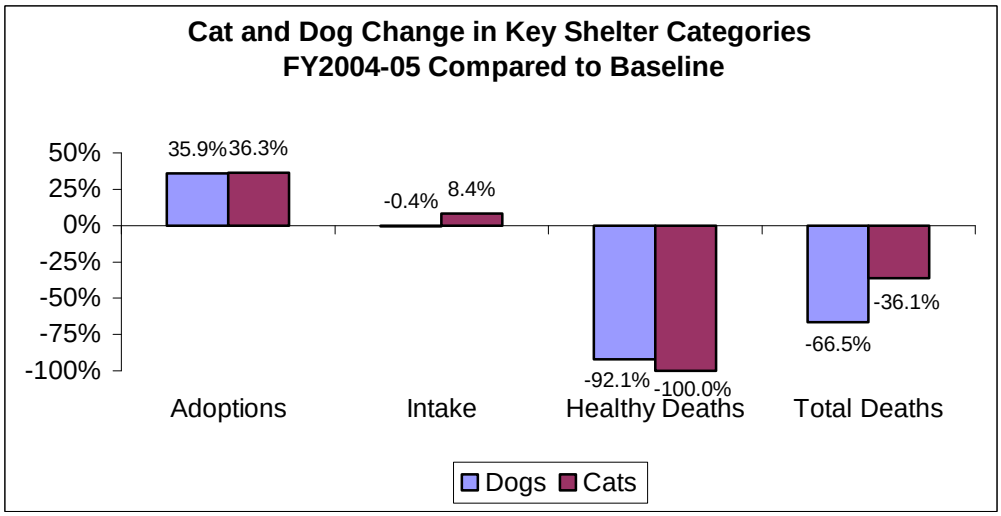

Figure 24

Sources of Change

The largest identifiable factor in the decrease in deaths over the total program period was the growth in adoptions, with slightly over half of the total death change coming from higher adoptions (see Figure 25). Increased animal redemptions explained under 10% of the death reduction. Intake increased and therefore explains none of the death reduction. When all factors are combined, deaths would have been expected to decline by 377 less than they actually did based on the change in adoptions, redemptions, and intake. Over half of the improvement in deaths over the total program period could not be explained by these three factors.

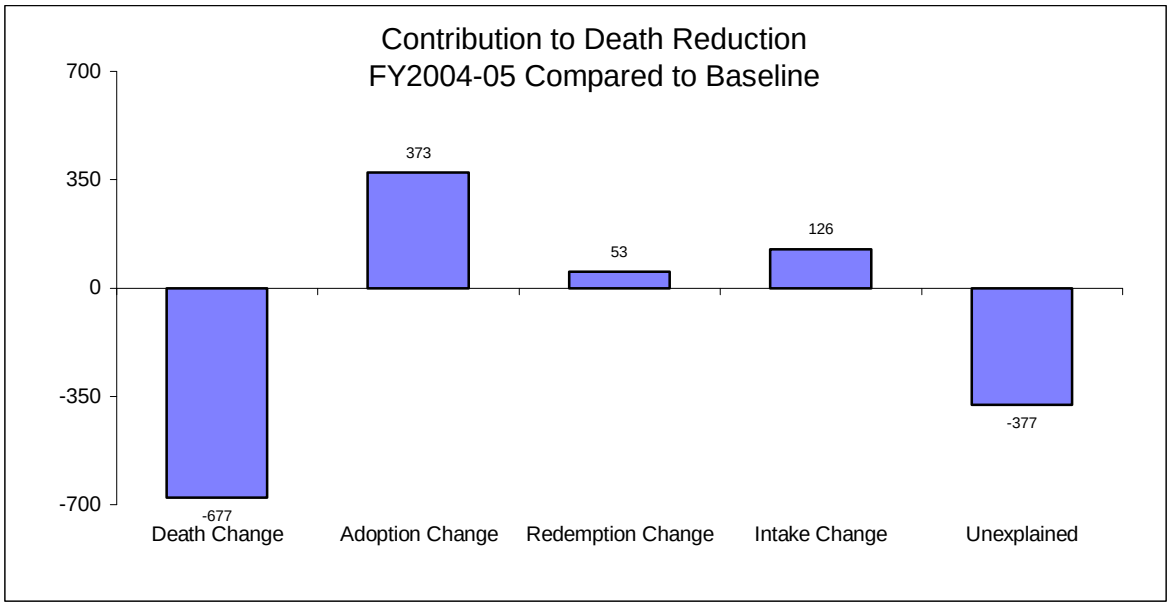

Figure 25

The statistical discrepancy between animals coming into shelters and animals exiting regional program shelters can be seen in Figure 26. Initially, the inflow of animals was smaller than the outflow by 2.2 percent. However, this increased over time in the first three program years, inflow was larger than outflow in four of the six years shown. By the fifth program year, the inflow of animals was 8.8 percent larger than the outflow. It is not unusual across programs for the inflow to be larger than the outflow. It could be caused by data errors but the difference is not necessarily an error. For example, rising levels of fostered animals could cause an increase in animal "inventory". The change in this discrepancy caused deaths to go down more than the change in adoptions, redemptions, and intake, and can therefore "explain" in one sense about 80% of the "unexplained" amount in Figure 25. However, it does not satisfactorily explain the variance because the difference between inflows and outflows is itself unexplained. The spike in the difference between inflow and outflow in the second program year can also help to explain the sudden drop in deaths in this year.

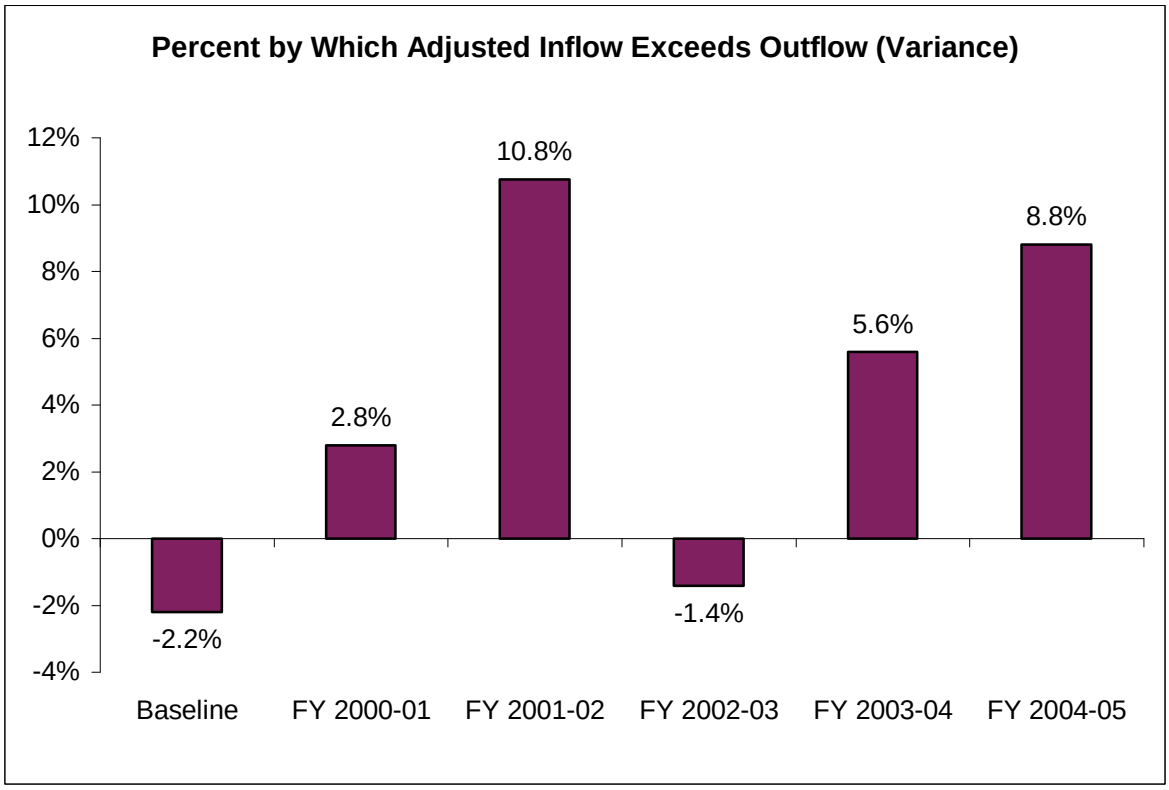

Figure 26

Figure 27 shows the year-over-year change in deaths, intakes, and adoptions, with favorable changes being shown as positive numbers (i.e. a decline in deaths or intake is shown as a positive number). In four of the five years, the change in deaths was favorable, with the one exception being FY2002-03, the middle year of the program. In the first half of the program, the improvement in the death rate was driven by growth in adoptions. In the first two years, intake increased, adversely affecting the reduction in deaths, while deaths declined. On the other hand, in the final two years of the program, the decline in deaths was driven by a decline in intake. In these two years, adoptions declined, adversely affecting deaths, while intake improved.

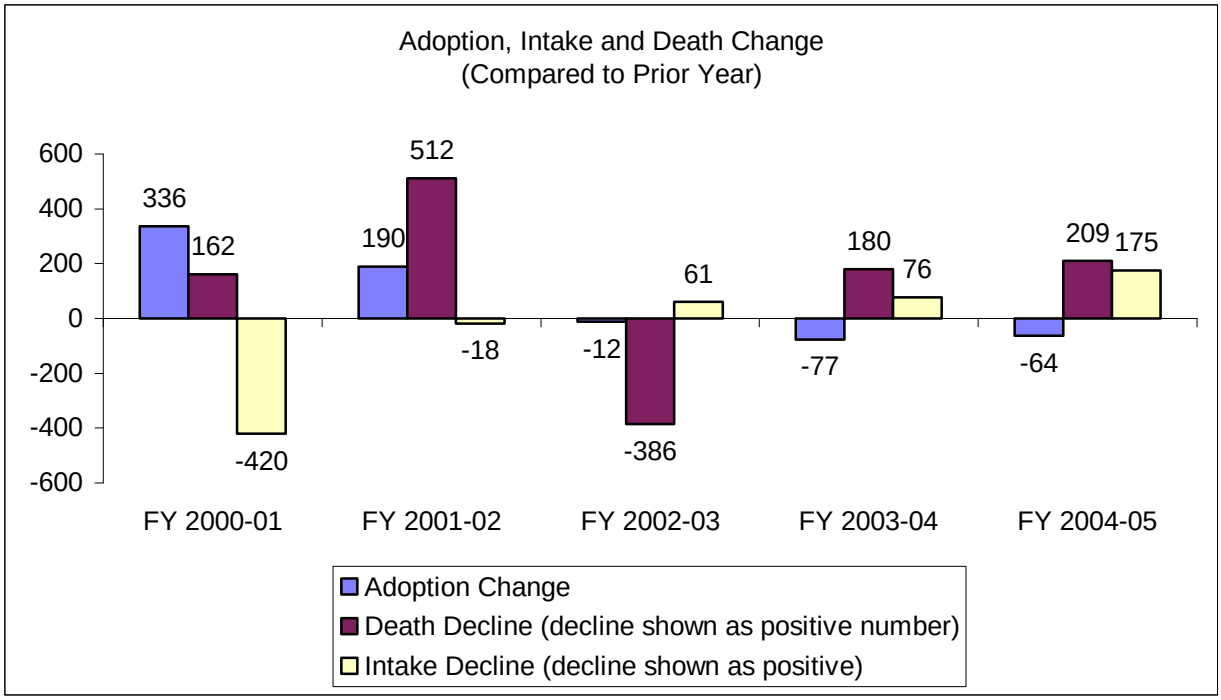

Figure 27

The live animal release rate indicates the portion of shelter animals that end up with positive outcomes (e.g. adopted or redeemed) as opposed to negative outcomes (i.e. killed at the shelter). The live animal release rate has grown over all, though it peaked in FY2001-02 (see Figure 28). In FY2004-05, the live animal release rate was 68.9 percent, an increase of 45.4 percent. This is the second highest level seen in the program. More than two-thirds of animals going into Lodi shelters now end up with positive outcomes.

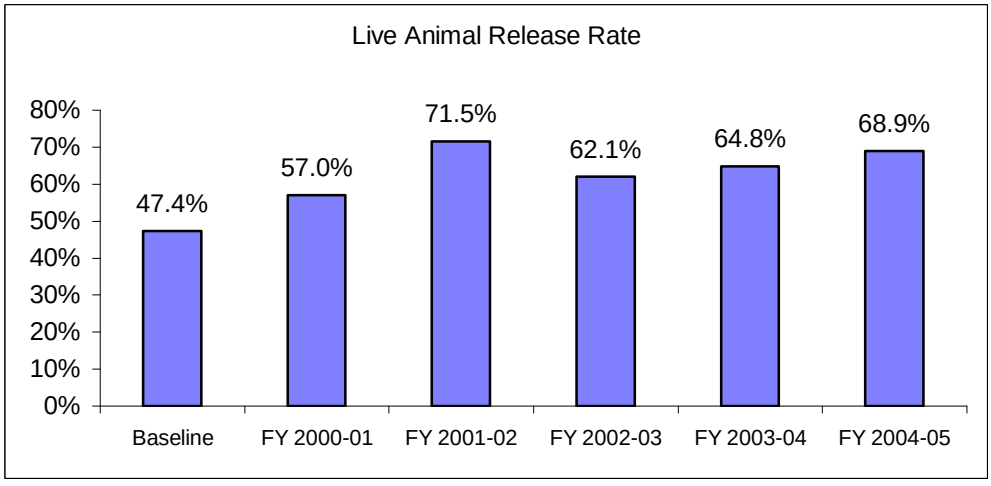

Figure 28

Conclusions

Lodi met its total death goal, though it failed to meet its final adoption, and healthy animal death goals. However, Lodi came very close to meeting its healthy animal death goal of achieving zero deaths, with only eight deaths the final year. In fact they did achieve zero healthy animal deaths in the final half year of the program. Lodi also achieved its spay/neuter goals early in the program, leading to no spay/neuter goals or funded surgeries in the final program year. Even in the areas that Lodi failed to achieve the Maddie's Fund goal, it did make very strong progress. Lodi has, in fact, reduced healthy and treatable animal deaths combined at a very impressive rate, though no goal was specified for this measure.

Figure 29 shows what would have happened if adoptions had met their goal in the last program year. With 186 more adoptions, total deaths would have been reduced to 601 instead of 787. Healthy and treatable animal deaths would have been reduced to 58—very close to zero deaths. Healthy animal deaths would have been completely eliminated (not shown on the graph). This, of course, assumes that the adoptions would have all gone towards reducing healthy and then treatable animal deaths, and other program dynamics remained the same.

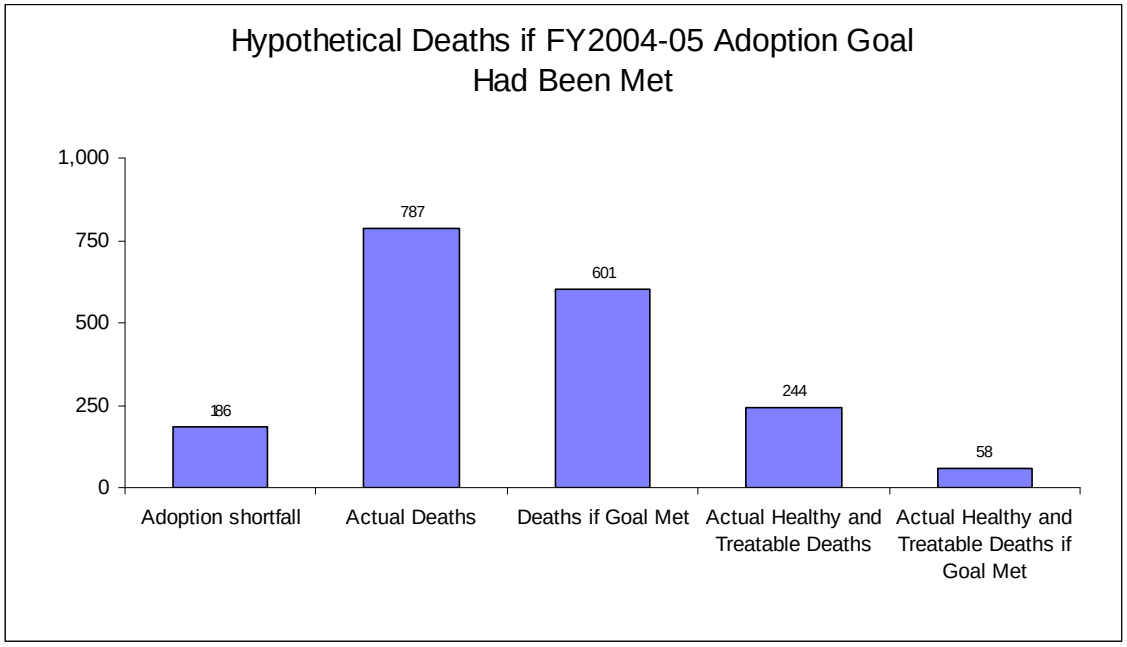

Figure 29

The program results show many successes and also provide evidence of the benefits of both increased adoptions and reduced intake. The impact of spay/neuter procedures on intake (and therefore deaths) is less clear here. Also unclear is how to interpret the gap between intake and outcomes. With half or more of the death reduction coming from sources other than intake, adoptions, and redemptions, this appears to be important to understanding the program results.