The Burlington Police Department (BPD) identified 39 individuals who had made frequent calls to the Department between January 2010 and March 2011. In the first month of the Interventionist's tenure (Jan. 2010), this group made 79 calls. The number of calls increased to 127 in July and then began a steady decline. By March of 2011, the number was down to 36 calls (Figure 1). This represents a 72% decrease from the peak in July and a 54% drop from the beginning of the program.

Five individuals accounted for 48% of all calls during the period reviewed (616 of 1,273calls). Calls from these five individuals declined by 83% from the highpoint in March 2010 to March 2011 (Figure 2).

This is especially noteworthy because calls by one of the top five increased significantly in the second half of the review period. Of the remaining four, three showed marked declines in call frequency (53%, 46%, and 34%) and one had no change.

Not all members of the cohort saw declines in calls. Call frequency declined significantly for almost half the individuals (17), but increased for 12. The remaining ten had no change.

Figure 1
Calls to the BPD by the top 39
January 2010 - March 2011

Figure 2
Call frequency for the Top Five
January 2010 - March 2011

We also tracked interactions with and/or interventions by other entities including service providers (FAHC, Fire/Ambulance) and elements of the criminal justice system (State's Attorneys, Courts, and Corrections).
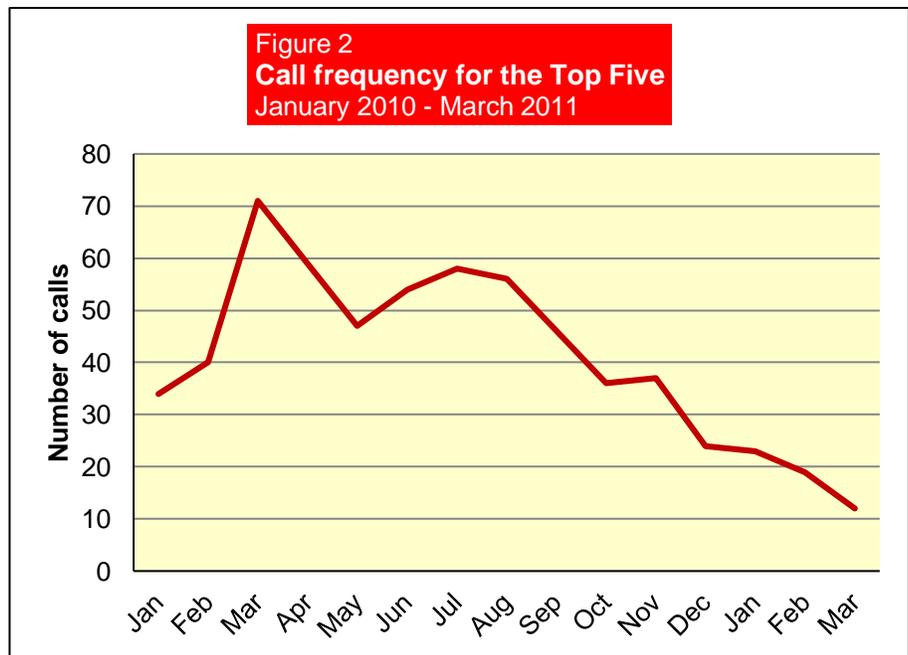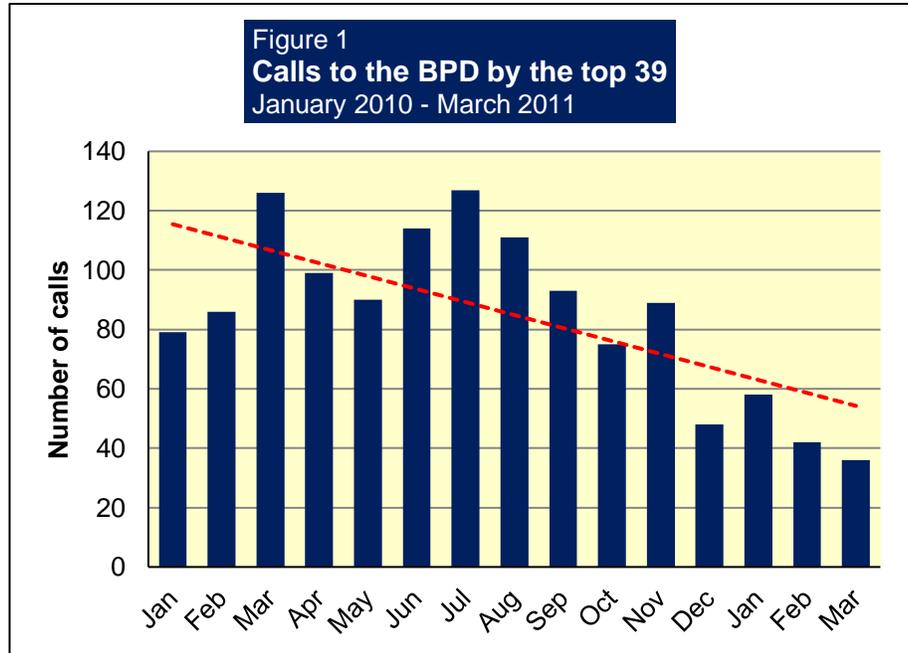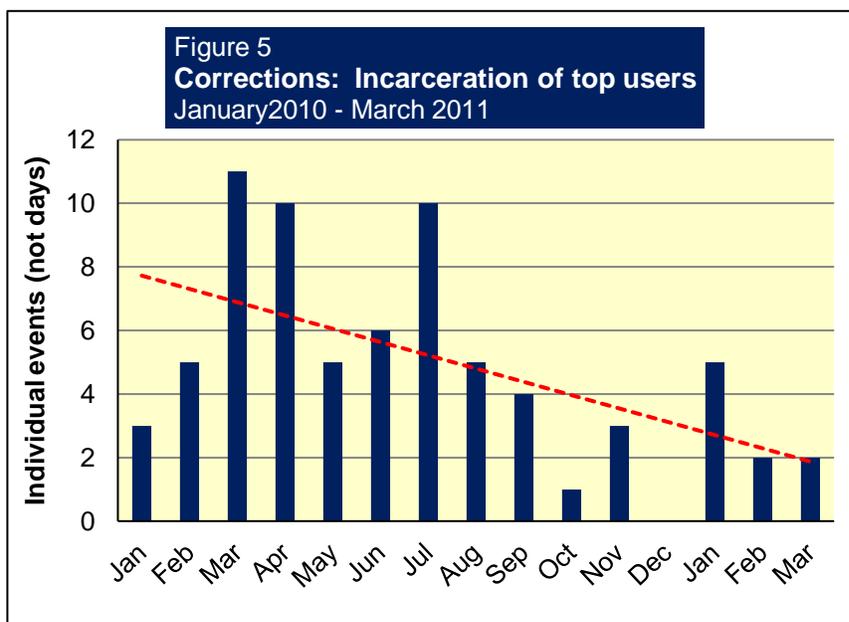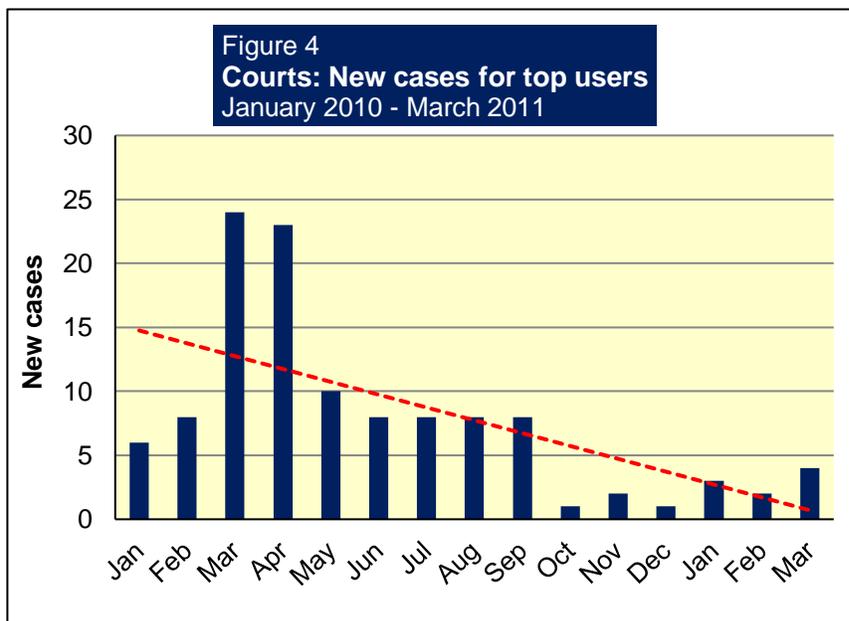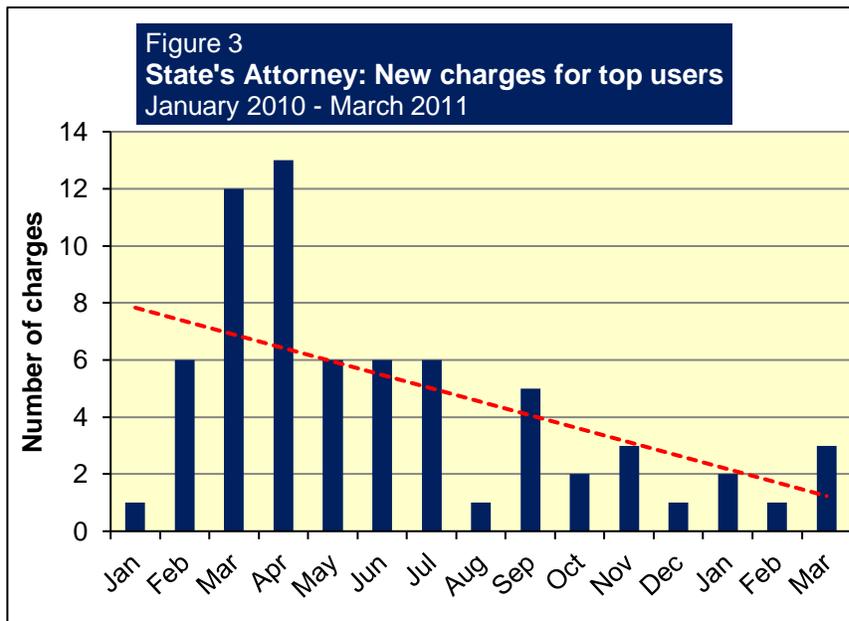
With one exception, the results mirrored those for the Police Department. Not surprisingly, the figures for the three entities in the criminal justice system are similar as they feed other (Figures 3 – 5). Each institution exhibited a significant decline from the peak month.

- 77% State's Attorney
- 83% Courts
- 82% Corrections

Fewer charges brought by the State's Attorney result in fewer court cases. Fewer court cases often (but not always) result in fewer incarcerations. In each instance, the reductions represent substantial avoided costs (see below).
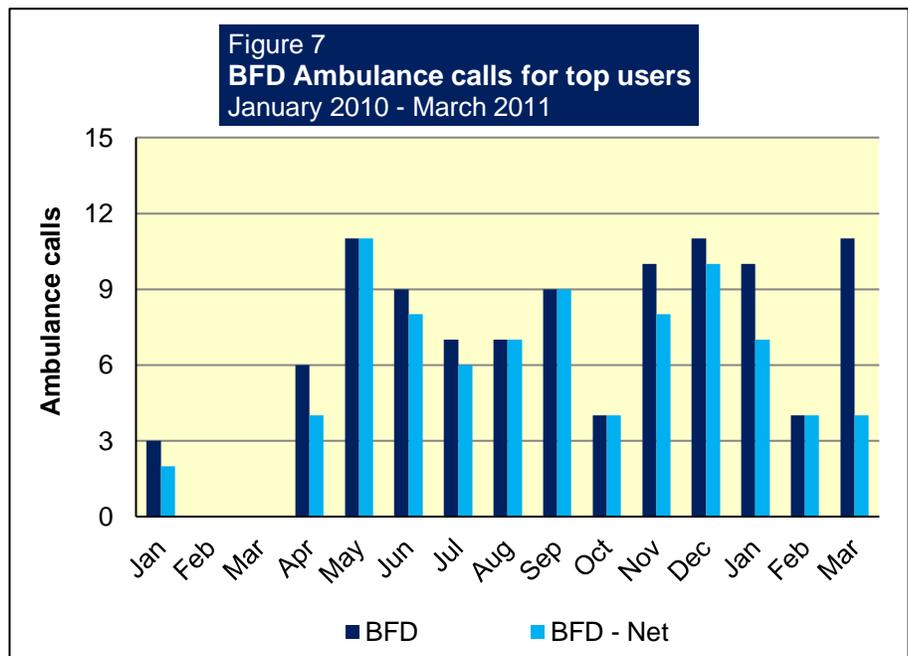
The numbers for Fletcher Allen (FAHC) don't appear as compelling but a closer look tells a different story. Overall, the frequency of admissions or ER visits for the top group declined by a relatively modest 29% over the full term (34% from peak). However, one individual accounted for 13% of total visits (51 of 393), including 37% of all visits during the final three months of the review period (28 of 76).

Figure 3
State's Attorney: New charges for top users
January 2010 - March 2011

Figure 4
Courts: New cases for top users
January 2010 - March 2011

Figure 5
Corrections: Incarceration of top users
January 2010 - March 2011

When we remove that one individual, Fletcher Allen's experience looks more like the other parties with a 66% decrease over the term (FAHC – Net; Figure 6).

We found a similar situation with the Fire Department's Ambulance service. The same individual who received so much care at Fletcher Allen was a heavy user of the ambulance service, including 40% of ambulance calls over the last three months (10 of 25 calls). When this individual is removed, there is a noticeable decline in the number of calls for the other 38 individuals over the last three months of the term (although it's too soon to know if this is a trend; Figure 7).

As noted above, we attempted to quantify the avoided costs related to the reduced incidence of calls by and interactions with the top 39 individuals. When possible, we obtained only direct costs from the institutions because the infrastructure exists whether these individuals make use of the services or not. For example, Fletcher Allen must staff the ER and provide other services at current levels because of regional demand. However, reduced frequency of use by the subject clients makes the personnel and site resources more timely, readily available, and accessible for other members of the community seeking emergency services. Notwithstanding the frequency of interventions for the top 39, they represent a tiny portion of services provided by the hospital. Therefore, it would be inappropriate to assign indirect / overhead costs to these individuals.

Figure 6
Visits to FAHC by top users
January 2010 - March 2011

Figure 7
BFD Ambulance calls for top users
January 2010 - March 2011
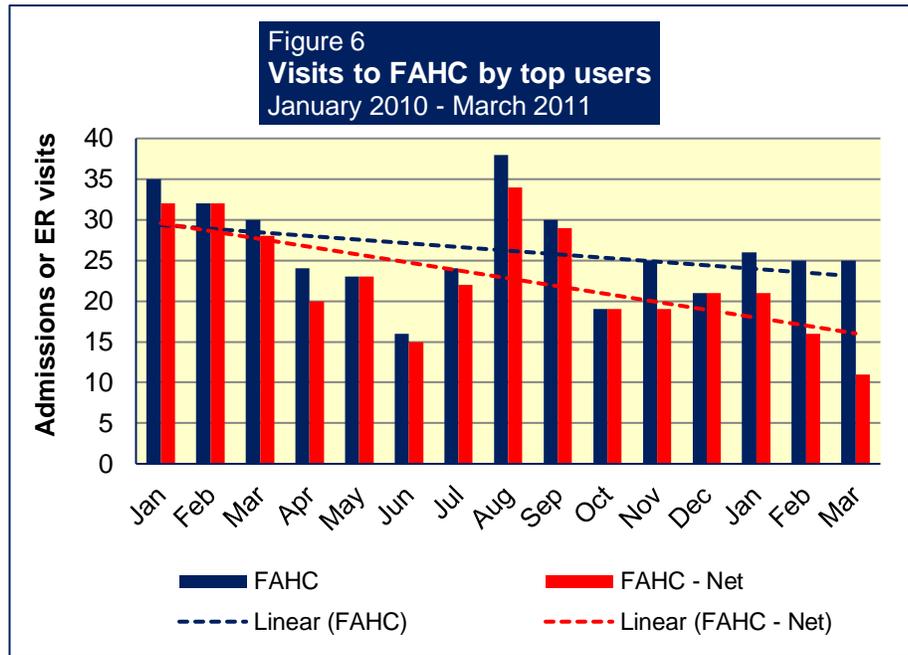
The Fire Department provided the cost for an ambulance call, which (presumably) includes all costs. Similarly, Corrections was unable to parse direct and indirect costs so we used the day rate for incarceration, which includes all costs.

For the Courts and State's Attorneys, it was impossible to get data on the direct costs expended for each individual so we calculated the average cost per case (budget ÷ cases) and multiplied that times the number of cases for the top 39. Clearly, this is a rough estimate at best because the average includes labor intensive cases such as violent felonies, as well as comparatively minor infractions.

Note: In addition to staff time answering phone calls at the Police Department, uniformed officers were often required to deal with the individuals in the top 39. There is no way to quantify the cost of those interventions (the officers are on duty either way), but there is an opportunity cost because they could be performing others tasks and/or accommodating the needs of other citizens in a more timely manner.

Using this imprecise (but conservative) methodology, we estimate that the top 39 cost these institutions over $300,000 in the 15 month review period (Table 1).

There was a steep reduction in monthly costs from the peak to the last month of the review period (Figure 8). Expenditures for the two peak months (March & April 2010) were almost $64,000, while the last two months were $25,000.

This is a difficult analysis because these are complex human beings with multiple problems. Without a great deal more time & money (and the approval of the subjects), we cannot know whether the data reflects mere correlations or causality.

Nevertheless, the available data suggests a strong correlation between the Interventionist program and the reduced incidence of calls by and interactions with the top 39.

Table 1		
Estimated total expenditures for the top 39		
January 2010 - March 2011		
Institution / Service Provider	Total Expenditure	Change from peak to March 2011
Fletcher Allen	$167,863	-88%
Court	$63,104	-83%
BFD-Ambulance	$41,290	0%
State's Attorney	$22,440	-77%
Corrections	$10,132	-82%
Total	**$304,829**	**-70%**

Figure 8
Est. monthly expenditures for the top 39