In a dataset of over 10,000 subscribers to a monthly weight loss program, is there a correlation between:

* Number of Visits
* Weight Loss
* Gender
* Age
* Transaction History
* Other factors

## Where is our churn?

This visualization shows the clinic locations and the size of the bubble represents the number of subscribers. Clicking the Member Status changes the size of the bubble to show if a clinic has a higher number of cancel subscribers compared to other locations.

Clicking on the legend shows the individual clinic member subscribers and % of total clinic subscribers.

## Subscription by Gender

This visualization shows the clinic locations the instead of member status, shows gender. Clicking other either the gender or clinic location will update the figures.

## Relationship between Member Status and Age

From Mark’s machine learning algorithm on gender, we note that there is a consistent relationship between weight loss and number visits in all generational groups except the Xennials. In this visualization, we see very similar results by age between active and cancel by checking the box. Canceled subscriptions in the younger age group could be due to financial concerns or achieving weight loss goals.

It is management’s desire to lower the average age of the subscribers. This visualization could help determine that younger patients may need different incentives to commit to a full year subscription compared to older patients.

## Relationship Between Lbs. Los and Number of Visits

In this visualization, we also see similar results to Mark’s machine learning algorithm where there is a correlation between churn, low weight loss, and number of visits.

This visualization plots the lbs. lost by total number of visits per patient. By using the check boxes, we can isolate gender, member status, and customer status to view results. The cancel filter demonstrates the cluster of patients who cancelled their subscription that the weight loss and number of visits is lower than those who continued an active membership.

The next visualization also shows a strong correlation between number of visits, weight loss, and member status visits along the x axis. Once again, cancelled subscriptions tend occur more frequently among those with fewer visits and fewer lbs. lost.

## When to Intervene with Low Weight Loss?

Management will want to know when is the optimal time to save a patient from becoming “churn”. According to this visualization, there is a noticeable opportunity for intervention around the fifth patient visit.

Those who achieved at least a 1 lb. weight loss by visit 5 were more likely to continue the subscription. Those who did not were more apt to cancel. Even more interesting was how this contrast manifests between Existing and New patients. Existing patients were more likely to cancel their subscription than new patients if they have not lost a 1 within the first 5 visits. This could be due to existing patients not being as comfortable with the new subscription model vs the old program model and not achieving the desired weight loss.

## Do new or existing subscribers churn more often?

Management will want to know if overall, there is a relationship between customer status and churn beyond the 1 lbs. discovered above?

In reviewing patients who have been with the company less than 5 years, over 50% of that group have less than a year of relationship. The interesting data point is that cancellations peak at the 12 month of membership, which coincides with the change of subscription from an annual contract to a month-to-month membership. The Management Team will use this information to create marketing strategies and operational plans to reduce churn at this point in the subscriber’s membership.

## Is there a correlation between Monthly Payments (transactions) and Subscriber Cancellations?

Since subscribers pay monthly, the transaction count corresponds the length of the subscription in months. We see a spike in cancellations in the 11th month just before the subscription renews on a month to month basis. This is similiar to the same data point as above.

Intriguingly, the cancellations seem to be greater among subscribers who were patients under the previous program model. By clicking the “Cancel” check box and comparing the “existing” vs “new” a marked difference appears in the 11th month between the two groups. Management may want to use this data to reinforce the benefits of the subscription model vs. the program model.