

ADAP Budget Forecasting

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- **Multiple and changing factors are driving ADAP costs – enrollment, utilization, drug pricing, clinical standards, economy, etc.**
- **Forecasting is as much Art as Science**
- **Keep it simple.**
- **Too many variable in a model = too many guesses.**

- **While monitoring enrollment is important, it has limitations for financial purposes.**
- **Usually only 60% to 80% of enrollees utilize ADAP in a month.**
- **This varies due to timing (last recertification), program policies (termination of non-users) and formulary (non-ARV coverage).**
- **Variation may increase when ADAP is changing the program = formulary, eligibility, wait list.**

- **Focus on rate of increase of clients (users) who get at least one drug in a month.**

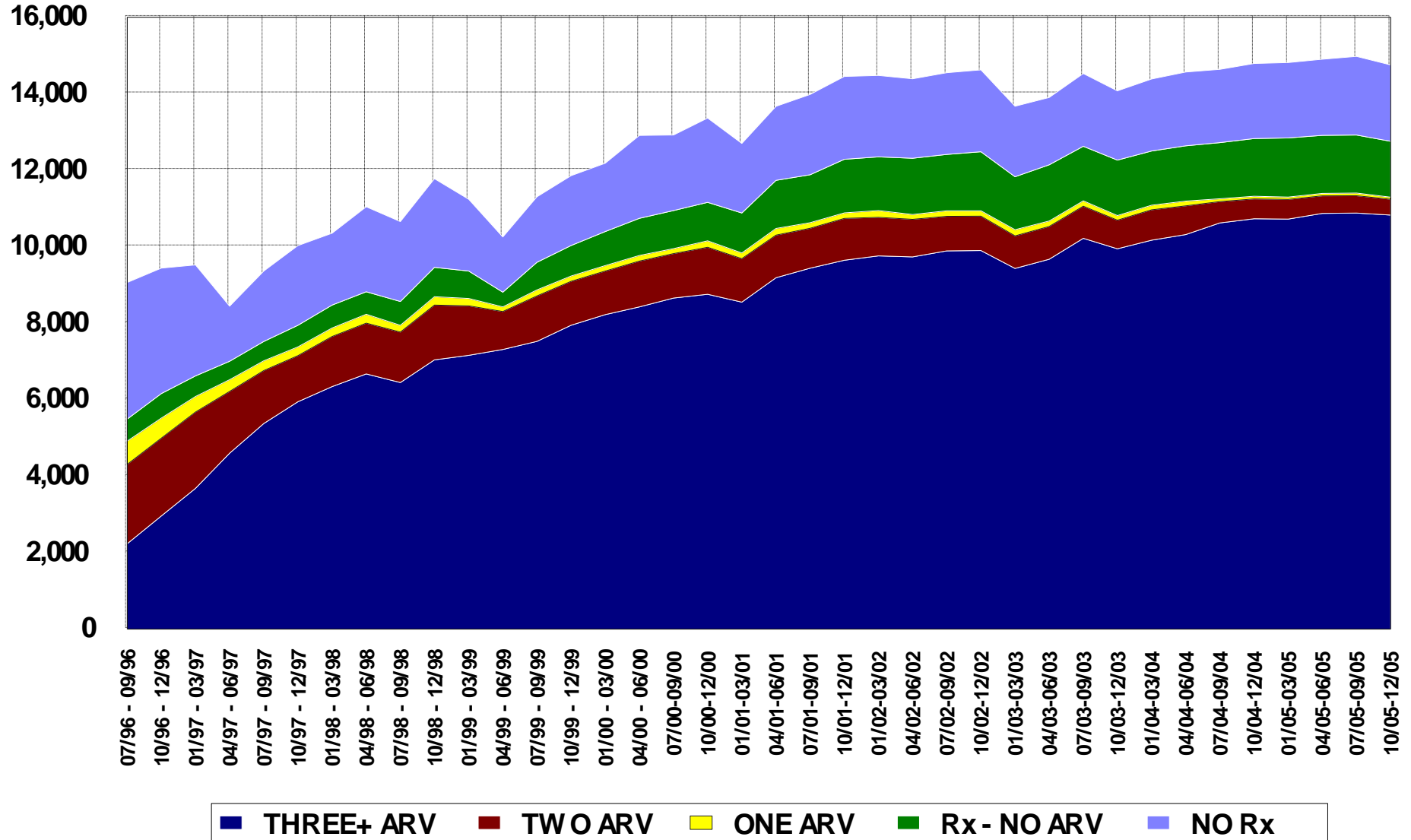
- **Focus on the rate of increase in average drug cost/user.**
 - Drug costs may increase due changes in prescribing patterns (more drugs and/or more expensive drugs in regimen), as well as drug price increases.
 - More difficult to calculate for Rebate states since rebates will increase if drug price increases exceed the rate of inflation.
 - Rebate state may want to adjust the rate of cost increase down to account for “net cost” changes.

- **Viewing additional trends may help to understand what is driving utilization & costs.**
 - Viewing “classes of drugs” may make it easier.
 - ARVs – trend analysis is complicated by combo drugs and should be controlled for.
 - Different approaches to graphing trends may provide additional information

New York State AIDS Drug Assistance Program

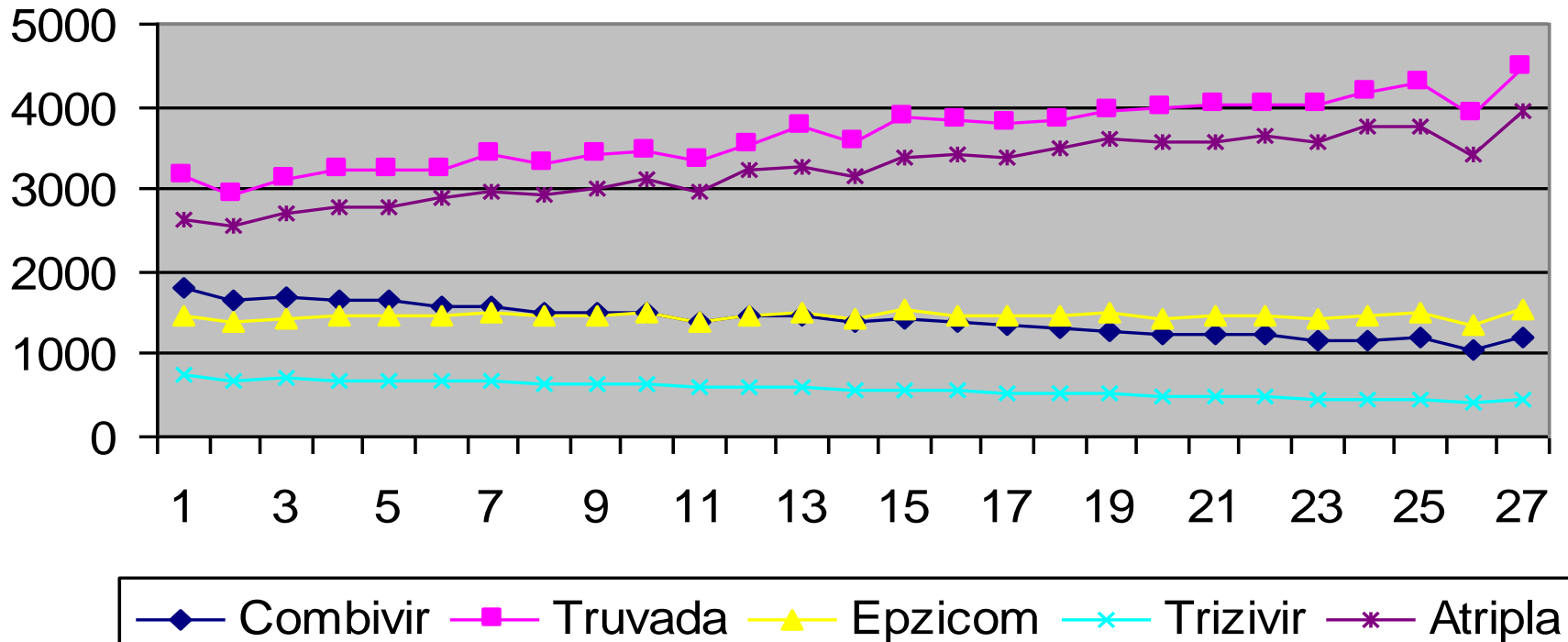
Antiretroviral Utilization

PARTICIPANTS



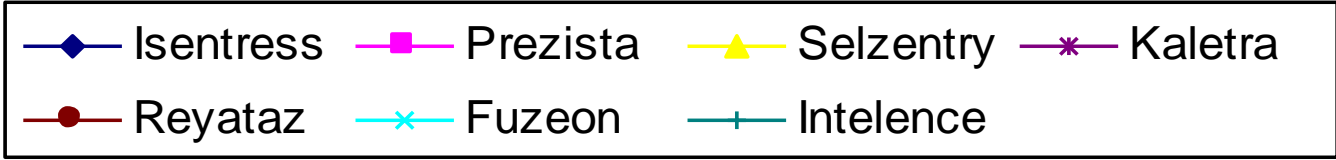
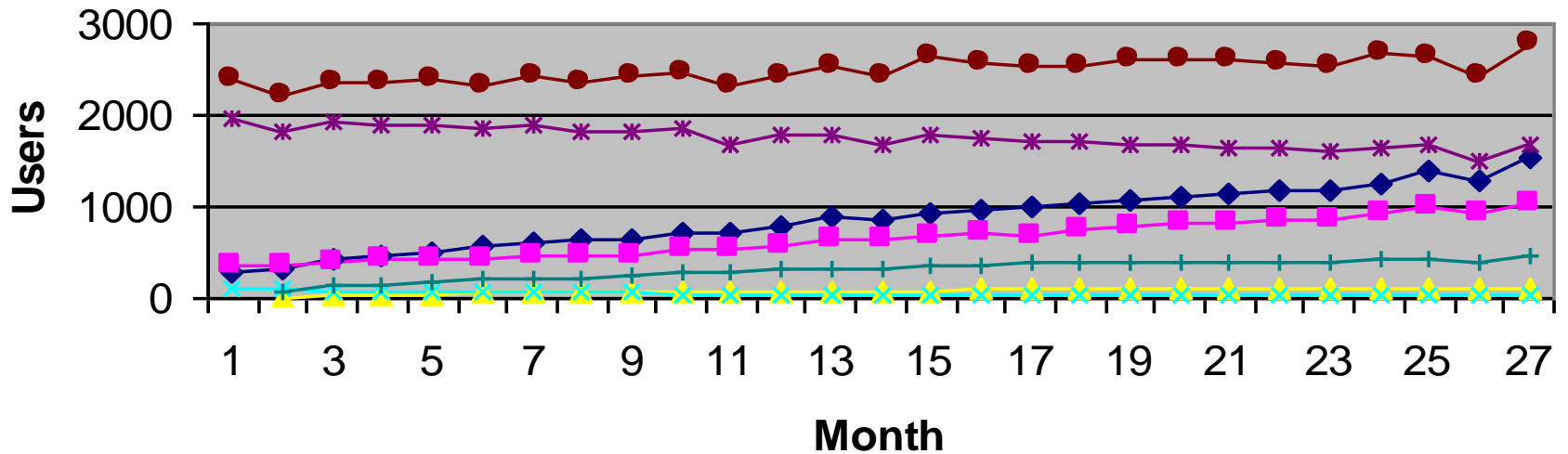
Trends in Utilization of ARV Combos

**Combination Drugs
 Jan 2008 to March 2010**

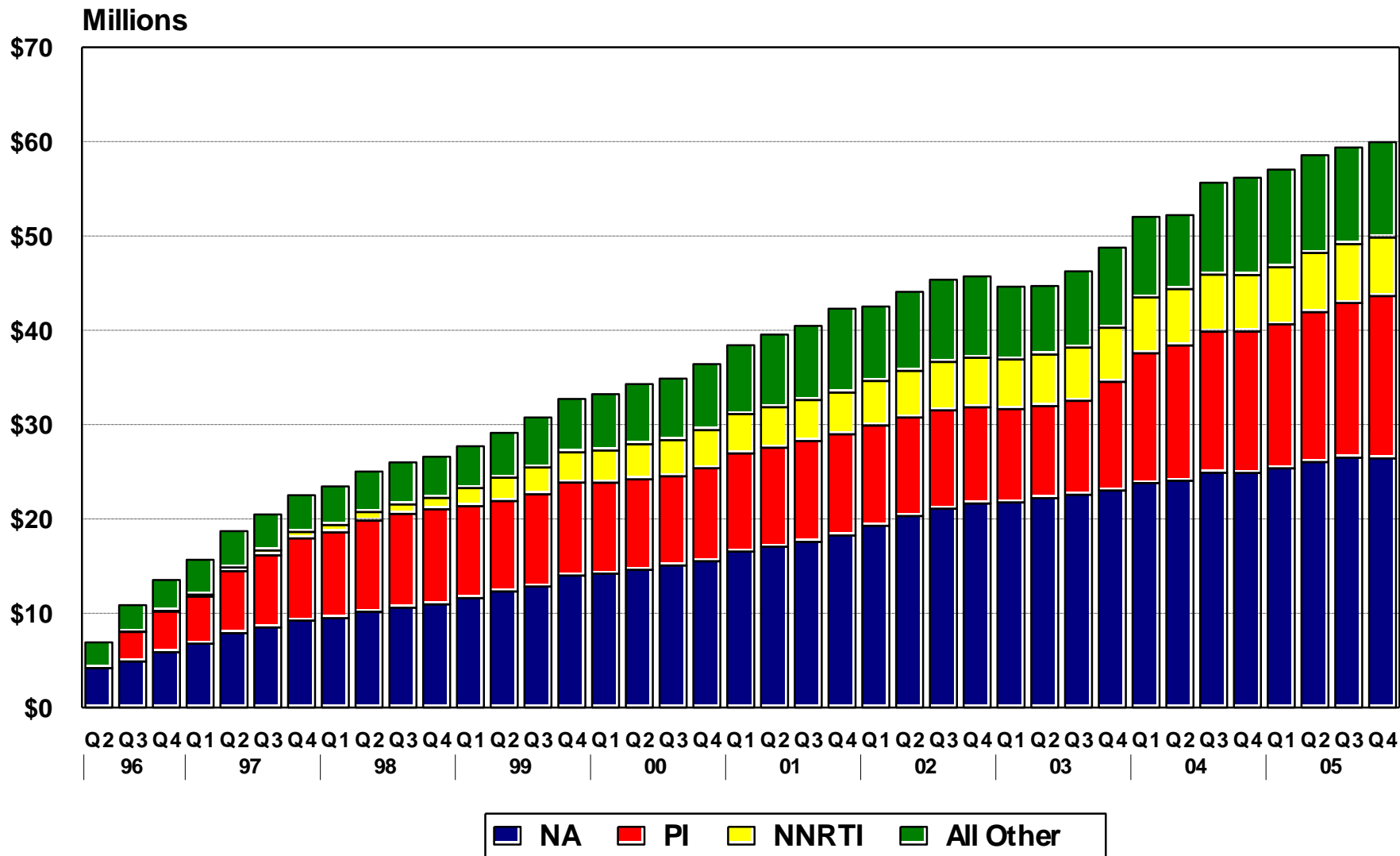


Trends In Utilization of Select ARVS

Jan 2008 to Mar 2010



New York State ADAP Expense by Quarter of ADAP Costs Period April 1996 through December 2005



Protease Inhibitors added on 7/1/96

Non Nucleoside Reverse Transcriptase Inhibitors (NNRTI) added 9/1/96)

- **Have a timeline of significant events (i.e., program changes, new drugs) helps to interpret trends.**
- **There is seasonality in drug utilization.**
 - Days in a month – More Rx's in a 31 day month
 - Peak periods – March & October
 - Holidays (i.e., Memorial Day, July 4th & Labor Day) can influence refill patterns when they fall near the end of a month.
- **Use 12 month periods (i.e., November to November) to smooth out seasonality.**

- **Rate of monthly increase in clients' utilization of ADAP:**
 - November 2007 = 1,200 users
 - November 2008 = 1,440 users
 - Rate of growth = $1,440 - 1,200 = 240$
- **Monthly growth = $240/12 = 20$ users**

- **Rate of increase in Average Cost per User:**
 - Average cost per user (Nov. 2007)
 $\$1,176,000 / 1200 \text{ users} = \$980.$
 - Average cost per user (Nov 2008)
 $\$1,446,480 / 1440 \text{ users} = \$1,004.50$
 - Increase = $\$1,004.50 - \$980.00 = \$24.50$

- **Monthly growth = $\$24.50 / 12 = \2.04**

Projection: Estimate by historical trends

Month	Users	Avg. Cost	Monthly Cost
<i>Change/mo.</i>	20	\$2.04	
Nov-08	1,440	\$1,004.50	
Dec-08	1,460	\$1,006.54	
Jan-09	1,480	\$1,008.58	\$1,492,698
Feb-09	1,500	\$1,010.62	\$1,515,930
Mar-09	1,520	\$1,012.66	\$1,539,243
Apr-09	1,540	\$1,014.70	\$1,562,638
May-09	1,560	\$1,016.74	\$1,586,114
Jun-09	1,580	\$1,018.78	\$1,609,672
Jul-09	1,600	\$1,020.82	\$1,633,312
Aug-09	1,620	\$1,022.86	\$1,657,033
Sep-09	1,640	\$1,024.90	\$1,680,836
Oct-09	1,660	\$1,026.94	\$1,704,720
Nov-09	1,680	\$1,028.98	\$1,728,686
Dec-09	1,700	\$1,031.02	\$1,752,734
2009 Total	22,000		\$19,463,618

Projection: Low and High Range

Month	Monthly Cost			
	<i>Change Month</i>	<i>Low</i>	<i>Estimate</i>	<i>High</i>
<i>Users (Dec = 1460)</i>		15	20	25
<i>Cost (Dec = \$1006.54)</i>		\$1.00	\$2.04	\$3.00
Jan-09		\$1,486,122	\$1,492,698	\$1,499,167
Feb-09		\$1,509,322	\$1,515,930	\$1,522,428
Mar-09		\$1,532,604	\$1,539,243	\$1,545,771
Apr-09		\$1,555,968	\$1,562,638	\$1,569,195
May-09		\$1,579,414	\$1,586,114	\$1,592,701
Jun-09		\$1,602,941	\$1,609,672	\$1,616,288
Jul-09		\$1,626,549	\$1,633,312	\$1,639,957
Aug-09		\$1,650,239	\$1,657,033	\$1,663,708
Sep-09		\$1,674,011	\$1,680,836	\$1,687,540
Oct-09		\$1,697,865	\$1,704,720	\$1,711,454
Nov-09		\$1,721,800	\$1,728,686	\$1,735,449
Dec-09		\$1,745,816	\$1,752,734	\$1,759,526
2009 Total		\$19,382,650	\$19,463,618	\$19,543,181



Projection: Monitor Actual Costs and Change as Necessary

Month	Monthly Cost			Actual	Difference	% Diff.
	<i>Low</i>	Estimate	<i>High</i>			
Jan-09	\$1,486,122	\$1,492,698	\$1,499,167	\$1,500,000	-\$7,302	-0.5%
Feb-09	\$1,509,322	\$1,515,930	\$1,522,428	\$1,450,000	\$65,930	4.3%
Mar-09	\$1,532,604	\$1,539,243	\$1,545,771	\$1,580,000	-\$40,757	-2.6%
Apr-09	\$1,555,968	\$1,562,638	\$1,569,195			
May-09	\$1,579,414	\$1,586,114	\$1,592,701			
Jun-09	\$1,602,941	\$1,609,672	\$1,616,288			
Jul-09	\$1,626,549	\$1,633,312	\$1,639,957			
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Nov-09	\$1,721,800	\$1,728,686	\$1,735,449			
Dec-09	\$1,745,816	\$1,752,734	\$1,759,526			
2009 Total	\$19,382,650	\$19,463,618	\$19,543,181	\$4,530,000	\$17,872	

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