

**Projections for Cost of HIV/AIDS
Statewide Needs Assessment Study
Of Care and Support Services Access for
Floridians Living with HIV Disease & AIDS**

Submitted by:

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Many factors are likely to influence the cost of HIV/AIDS for the state of Florida in the foreseeable future. The discovery of a vaccine to prevent HIV infection, and implementation of effective immunization programs with such a vaccine among the general population or among high risk populations could have tremendous impact on reducing the cost of the disease. This potential is not likely to occur within the next few years, but these potential changes illustrate the limitation of relying on assumptions in forecasting and the difficulty of estimating the cost of the disease.

A number of uncontrolled factors introduce considerable variability even in the immediate future. Factors influencing the number of people who need treatment would be the incidence (number of new cases), delays in converting from HIV to AIDS, AIDS survival rates, and the potential for changes in the effectiveness in both prevention and treatment. Prevention and harm reduction efforts have been shown to be successful with some populations but the effectiveness varies over time and among different groups. Conversely decreases funding of programs followed by decreases in existing programs could result in increases in the disease. Increased research could make programs even more effective and could reduce the impact of the disease. Changes in treatment, mutations of the virus, and changes in immune systems and behaviors of people with HIV/AIDS are other variables that could alter the epidemic and therefore impact cost of treating the disease. Increased availability of substance abuse and mental health services is another factor that could help reduce the disease and impact cost.

The cost of treatment per person is also subject to factors that are not predictable at this time. Factors influencing cost would be potential changes in cost due to new discoveries, changing status of patent protection and competition among drug companies when drugs lose their patents. Mutation of the virus effecting treatments is unpredictable. More effective drugs that cost more or new drugs that are needed to cope with mutations of the virus may also increase the cost of treating the disease.

Estimates can be developed based on assumptions concerning any of the above variables although the interaction or synergy of those variables would still be virtually impossible to predict. Consequently, the approach to estimating the cost of HIV/AIDS for the foreseeable future uses straight forward projections based on the current trend in increase of the disease and the increasing cost using estimated cost per person based on the projected consumer price index (See Table 1).

These estimates can be used as the basis for projections and then adjusted based on assumptions that one would like to make concerning the previously describe factors. For example, if one were to assume that prevention efforts will improve to the extent that ten percent of the people, who are currently becoming infected will not become infected, and this prevention effect will be maintained over time, then the number of new cases that make up the total number of cases should be reduced by ten percent. An increase in the death rate due to loss of effectiveness of treatment could have a similar effect on reducing the prevalence of the disease and therefore decrease the cost. No attempt is made to make those assumptions with the following estimates.

Table 1
Estimated Cost of HIV/AIDS in Florida

Year	People Presumed Living with HIV/AIDS (PLWHA) Reported Number	Estimated Average Cost per Patient**	Estimated Cost of HIV/AIDS in Florida
1999	47,661		
2000	55,060		
2001	62,351	\$9,948*	
2002	68,545	\$10,346	\$709,161,086
	Projection***		
2003	77,371	\$10,760	\$832,493,143
2004	87,334	\$11,190	\$977,280,304
2005	98,580	\$11,638	\$1,147,249,686
2006	111,274	\$12,103	\$1,346,778,495

*Calculated Cost for 2000-2001 FY based on 58112 PLWHA
 – Source: Florida Patient Care Epidemiological Profile, 2002

**Estimations are calculated based on 4% CPI-U for Medical Care in 2002, which is also used for 2003-2006, Source: Bureau of Labor Statistics, 2003

***Projections are calculated using a logarithmic model: $P_t = P_{1999} e^{tk}$, t = #of years after 1999, P_t = # of People after t years, and $k = .121126$ = a constant calculated using PLWHA 1999 and 2002, Source: Florida Department of Health, Division of Disease Control, 2003

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