

## Background

Prophylactic drugs and highly active antiretroviral therapy (HAART) have drastically reduced the incidence of AIDS, however, increased survival has kept the prevalence of AIDS within a HIV population at relatively high levels. We wished to examine the impact that the higher prevalence of AIDS has on the total direct costs of providing medical care to an HIV infected population.

## Methods

Direct medical costs of all patients presenting for HIV care at the Southern Alberta Clinic (SAC), Calgary, Canada between April 1996 and April 2002 were included. SAC is the regional HIV care center for all HIV infected patients living in southern Alberta providing care free of charge within a universal health care system. Detailed sociodemographic, clinical, and direct costing data (from primary sources) were collected for each patient<sup>1</sup>. Costing categories are listed in Figure 1. Patients were considered to have AIDS if they were diagnosed with one or more of the 21 AIDS-defining illnesses. Mean costs are presented as cost PPPM (per patient per month) in 2002 Canadian dollars (1 US\$=approx. 1.27 Cdn\$).

Figure 1 : Cost Categories

Drugs	Out-Patient Care
Antiretrovirals	Clinic Physicians/Other Physicians
Antivirals	Psychiatric Care
Other licensed drugs	Nursing Care/Social Work
	Nutritional Counseling
	Laboratory Tests
Homecare	In-Patient Hospital Care
Assessment	Physicians/Nursing Services
Case Coordination	Surgery
Personal Care	Diagnostic Imaging
	Lab Tests/Clinical Care

# The Direct Cost of AIDS Care in the Era of HAART

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## Results

The incidence of AIDS in southern Alberta decreased from 110/1000 in 1996 to 14/1000 HIV patients per year in 2002 (see Figure 2). Prevalence of AIDS decreased from 201/1000 to 160/1000 between 1996 and 1999 but increased by 12.5% to 180/1000 in 2002. In 1994, prior to HAART, 36-month survival after an AIDS diagnosis was 18%; in 2000 71% achieved 36 month survival. 47% of patients with AIDS had experienced 2 or more AIDS defining illnesses.

Figure 2 - Incidence and Prevalence Rates of AIDS (1996-2002)

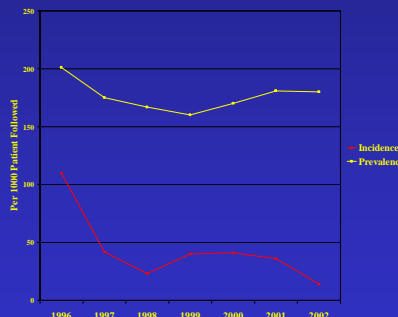
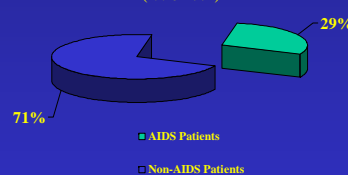
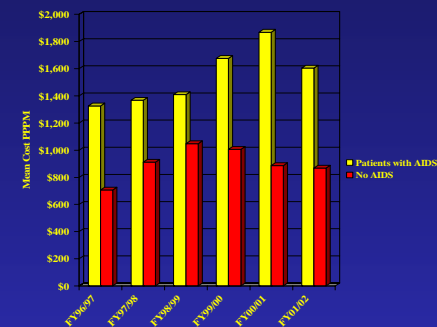


Figure 3 - Total Direct Medical Care Costs (1996-2002)



Although AIDS patients account for only 18% of the HIV population they accrue 29% of the total direct care costs as shown in Figure 3. Drug, outpatient, inpatient, and home care costs were 55%, 40%, 143% and 288% higher for patients with AIDS even when controlling for CD4 count. Mean PPPM costs for patients with AIDS increased by 21% from FY96/97 to FY 01/02 as shown in Figure 4. In contrast, for non AIDS patients mean PPPM costs have decreased by 20% from FY98/99 to FY01/02.

Figure 4 - Total Direct Care Costs PPPM in Cdn\$



**Conclusion:** The direct costs of care for patients with AIDS remains significantly higher than for non-AIDS HIV patients and comprise a disproportional amount of the HIV care budget. Therefore, an AIDS diagnosis is an important marker in costing studies. Future projections of HIV care costs need to address the increasing costs associated with AIDS care.

<sup>1</sup>Krentz,Auld, Gill CMAJ 2003;169(2),106-110.

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