

# An Overview of the Alberta Population-Based Funding System

## **Introduction**

A marked change has occurred in the way the bulk of the health services provided to Albertans are financed. Prior to 1997, a variant of a prospective global budgeting system was used to fund the province's general acute and auxiliary hospitals and public health units. Under this funding system a lump sum budget was negotiated between the Alberta Health and an individual health board. This budget was based on the past expenditures made by the health care enterprise and estimates of proposed changes anticipated in the forthcoming year. After passing through a departmental screening process, each institution's budget was rolled-up and the health ministry's budget was presented to the provincial government's priorities committee, where it was accepted or modified in accordance with the fiscal stance (balanced, surplus or deficit budget) that the province wished to assume for the forthcoming year. The actual funding received by an individual health care board or institution was finalized when the provincial budget was passed in the spring session of the provincial legislature. Large scale capital spending on facilities and equipment for various institutions was established as a separate budget item within the Supply and Public Works ministry budget. Smaller capital purchases were financed out of current operating grants.

On April 1, 1997 the traditional prospective global budgeting system was replaced by a prospective capitation-based budgeting system. This change in the mode of financing the Alberta health care system was implemented after a sweeping organizational reform of the system, in the course of which more than 200 individual boards were dissolved or placed in a subordinate position relative to 17 Regional Health Authority (RHA) Boards which were appointed directly by the provincial government.<sup>1</sup> These Authorities were given the responsibility for the financing and delivery of all acute and long term care, home care, community care and public health services within the provincially financed portion of the health care system.<sup>2</sup> Although no changes occurred in the way doctors were paid, the medicare schedule of benefits was reduced by

approximately 4.6 percent in August 1994 in keeping with a roll back in wages and salaries which was implemented across the rest of the health care system, the provincial government proper, universities, schools and most of the municipalities.<sup>3</sup>

The purpose of this paper is to provide an overview and an assessment of the major strengths and weaknesses of the population-based funding system used to fund RHAs within Alberta.

## **Compliance with the Canada Health Act**

It is important to note at the outset that all of the provincial-regional health care transfer payment systems in existence in Canada are shaped by the rules and regulations established by the federal government with respect to the transfer of health care funds from the federal to the provincial governments. The mechanics governing the transfer of funds to the provincial governments for health, social services and advanced education are set out within the *Federal-Provincial Fiscal Arrangements Act*<sup>4</sup> and its attendant regulations. This legislation is the latest manifestation of a series of funding agreements struck between the federal government and the provinces since the late 1950s governing the way federal government funds should be allocated in areas which fall directly within the constitutional purview of the provinces. Over the course of this period of time the federal-provincial health transfer programs have ranged from highly specific "strings-tied" arrangements, such as those included in the original 50-50 cost sharing programs set out under the aegis of the *Hospital Insurance and Diagnostic Services Act* (1957)<sup>5</sup> and the *Medical Care Act* (1967),<sup>6</sup> to the current *Federal-Provincial Fiscal Arrangements Act* (1995) which provides the maximum freedom and flexibility to the provinces regarding the way federal funds can be allocated within three broad spending areas—social services, health care and advanced education. The increased flexibility associated with the development of the new federalism has been accompanied

by a marked reduction in the proportion of total health care spending financed by the federal government. This reduction in the level of federal funding linked with the balanced budget stance adopted by the Federal Cabinet, has been and still remains a major source of contention between the two levels of government even though significant steps were taken in the last federal budget to expand the level of health care transfers going to all the provinces and territories.

The key provisions affecting the way that provincial governments administer their health care systems are set out in the *Canada Health Act*,<sup>7</sup> which is one of the cornerstones of social policy within the nation. In order to qualify for federal funding the province's health care system must meet five principles: (1) universality, (2) comprehensiveness, (3) accessibility, (4) portability and (5) public administration. All medically required services provided by physicians and all medically necessary services provided within hospitals must be provided without extra-billing or hospital user fees. Provinces that fail to comply with these conditions may have a dollar for dollar penalty imposed on them,<sup>8</sup> through a reduction in the annual transfer payments made to the offending province.

## ***The Population-based Funding System in Alberta***

### ***The Need for Population-based Funding***

The traditional global budgeting system resulted in provincial transfer payments being directed to various institutions, programs and agencies after a prolonged set of submissions and negotiations between the provincial health bureaucracy and the administrators submitting budgets on behalf of their local boards. The bulk of the expenditures that were submitted were contained in the budgets presented by general acute hospitals. General acute hospitals are the workshops of the province's physicians; over time, the publicly funded general acute hospital system has been shaped to meet the demand for health care services exercised by the physicians resident within a particular region. In essence, the access to non-office based health services by the population of a region under a fee-for-service system and the traditional way of funding hospitals depends

upon the number and mix of physicians, the stock of hospital beds and related services acquired over many decades of lobbying and negotiations and the needs of the population as interpreted by medical practitioners. Attempts to redress the allocation of hospital and other related resources from high to low service areas were almost impossible to carry out in a setting where every budget was negotiated separately and no single entity was empowered to deal with the overall interests of the residents of a region. Competing and often overlapping demands for hospital services were expressed by a multiplicity of medical doctors who were not personally affected or often even aware of the costs incurred by the provincial government in meeting their demands.

The population-based funding system implemented by the Government of Alberta was designed to cope with certain of the key problems created by the old funding system. Firstly, the creation of one health care authority

responsible for all of the hospital care, home care, continuing care and public health care within a region ensured that all of the region's financial resources were put in the hands of a single board which had the authority to ensure that all non-physician services were deployed in ways which met the needs of the population as well as those of the health care providers. Secondly, the new funding system was designed to try and ensure that equal funding was provided to residents with equal health care needs. RHAs with different demographic characteristics were to be funded differently but equally. By focusing on funding persons rather than institutions, and by emphasizing equity in the distribution of health funds, it was believed that the RHAs would have to determine whether they were willing to continue to use scarce resources to maintain the operational viability of obsolete, underutilized or relatively inefficient acute care hospitals or embrace new ideas and technologies that would permit them to deliver a high quality of care outside of the walls of traditional health care institutions. Thirdly, the provincial government believed that a significant reduction in the number of individuals employed by Alberta Health could be achieved by moving to a population-based funding system and three year business plans rather than in continuing to operate a system based on a one-to-one interaction between provincial health personnel and hundreds of individual boards and administrators. Only time will tell whether the total number of personnel hired by

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the RHAs less the total fired by the provincial government will lead to a net increase or decrease in the number of personnel required to run the new system.<sup>9</sup>

Alberta Health's statement of the major reason for moving to a new funding system is focused on the attainment of greater equity or fairness in the distribution of health care resources:

...Alberta [has] adopted a new method of funding regional health authorities to ensure that each region receives its fair share of available health dollars.

Under population-based funding, funds are allocated to each regional health authority according to the population in the region and their estimated relative health care funding requirements. The population's health care funding requirements are measured by taking into account the:

- total population base of each region
- age and gender of the population
- socio-economic composition of the population base
- services provided by regions to residents of other regions.

Because funds are allocated according to relative health care needs in the population, all regions are able to operate on a more level playing field than in the past...<sup>10</sup>

### ***The Role Played by Population-based Funding in Financing the Total Payments Made to RHAs***

The total payments made to RHAs are composed of payments made from three sources: (1) a Population-based Funding pool; (2) a Province Wide Services Pool and (3) a Non-Population-based Funding Pool. Table 1 has been prepared by Alberta Health. It provides an overview of the total provincial funding of \$2.5B received by the 17 RHAs for the fiscal year 1999-00, exclusive of the Alberta Cancer Board and the Alberta Mental Health Board ,and the Province Wide Funding Program.

**Table 1 - Regional Health Authorities: Global Funding Targets (excluding Province Wide Services)**

RHA	1998\99 Comparable Budget	3% Guarantee	Population Growth	99\00 Target			Change from 1998\99	
				No Loss Payment	Capital Equipment	1999\00 Total	\$	%
1 Chinook	136,640,229	4,099,207	1,940,119	616,152	849,541	144,145,248	7,505,019	5.5
2 Palliser	73,898,674	2,216,960	2,668,228	0	467,077	79,250,939	5,352,265	7.2
3 Headwaters	42,528,256	1,275,858	1,940,238	0	271,199	46,015,541	3,487,285	8.2
4 Calgary	718,524,311	21,555,729	20,352,952	15,868,714	4,602,373	780,904,080	62,379,769	8.7
5 Region 5	36,271,210	1,088,136	986,576	0	227,337	38,573,259	2,302,049	6.3
6 David Thompson	138,247,323	4,147,420	3,545,389	1,019,521	871,263	147,830,915	9,583,592	6.9
7 East Central	98,955,730	2,968,672	1,799,518	0	614,936	104,338,856	5,383,126	5.4
8 WestView	36,050,029	1,081,501	1,585,116	0	229,535	38,946,181	2,896,152	8
9 Crossroads	32,429,589	972,888	822,604	692,095	207,010	35,124,186	2,694,597	8.3
10 Capital	786,452,316	23,593,569	9,480,257	18,018,190	4,965,455	842,509,787	56,057,471	7.1
11 Aspen	45,866,465	1,375,994	1,340,917	0	288,031	48,871,406	3,004,941	6.6
12 Lakeland	84,327,620	2,529,829	1,516,347	0	523,932	88,897,728	4,570,108	5.4
13 Mistahia	68,837,964	2,065,139	1,430,491	0	428,836	72,762,430	3,924,466	5.7
14 Peace	19,742,328	592,270	208,717	0	121,793	20,665,108	922,780	4.7
15 Keeweenok	16,265,757	487,973	500,089	0	102,291	17,356,119	1,090,353	6.7
16 Northern Lights	24,035,766	721,073	730,529	0	151,104	25,638,462	1,602,705	6.7
17 North western	11,878,060	356,342	672,735	297,873	78,287	13,283,296	1,405,236	11.8
<b>TOTAL</b>	<b>2,370,951,627</b>	<b>71,128,549</b>	<b>51,520,823</b>	<b>36,512,545</b>	<b>15,000,000</b>	<b>2,545,113,544</b>	<b>174,161,917</b>	<b>7.3</b>

Source: Alberta Health, "Regional Health Funding Manual: 1999:00 Funding", Edmonton, Alberta, March, 1999 [www.health.gov.ab.ca/rhas/popfund2/pb1-t1.htm](http://www.health.gov.ab.ca/rhas/popfund2/pb1-t1.htm)

The transfer payments received by the two boards amounted to slightly under one quarter of a billion dollars—\$81.4M for the Alberta Cancer Board and approximately \$167.7M for the Provincial Mental Health Board. Province Wide Services are high intensity services such as transplant surgery, cardiac by-pass surgery, etc. that are provided in tertiary care centres located within the Capital or Calgary RHAs. The amounts of approximately \$119M and \$135M have been earmarked for expenditure on the Province Wide Service program in Calgary and the Capital RHA, respectively.

A myriad of programs operated by various RHAs are contained within the Non-Population-based Funding Pool. Three items in this “catchall” funding category account for approximately 77 percent of the \$162M which is earmarked for expenditure during the current year. These are: community laboratory services (\$65M), community rehabilitation (\$40M) and Assured Access (\$18.6M).<sup>11</sup> While both the laboratory and rehabilitation programs should be included within the population-based funding system, the existing information system is not capable of generating the utilization and costing data necessary to incorporate these two programs fully into the current funding system. The Assured Access program is a program which is designed to subsidize the operation of health facilities and programs within sparsely settled rural areas. The other programs contained within the Non-Population-based Funding Pool are too numerous to list. They encompass a hodge-podge of activities ranging from sexually transmitted disease and tuberculosis clinics to a “cost-of-doing-business subsidy” for small RHAs located in northern Alberta.<sup>12</sup>

In summary, approximately \$665M, or the equivalent of 24 percent of the total payments received by RHAs in 1999 (2.8),<sup>13</sup> is provided to either the Calgary RHA or the Capital

RHA for province-wide services, or to the Cancer and Mental Health Boards, or it is used to fund so-called non-population activities, the major components of which are programs awaiting incorporation into the standard population-based funding framework.

### ***The Pure Population-based Funding Model***

Table 2 provides a summary overview of how the “pure form” of the Alberta population-based funding model is used to calculate the payments made to each of the 17 RHAs. The following points should be noted:

(1) There are marked differences in the size of the population contained within each RHA. Calgary is the largest, with 887,933 people contained within its administrative boundaries, while the Northwestern RHA has a population of only 19,244. Calgary is approximately 46 times the size of the small northern RHA. A number of other comparisons could be made showing major differences in the size of the population contained within various RHAs. The point to note is that both the large and the small RHAs have similar functions and responsibilities to discharge.

The problem faced by the small RHAs is that they lack the resources and specialized staff necessary to meet a large number of the health needs of their population. The administrative boundaries that have been drawn up for RHAs in Alberta are not based on health care catchment boundaries or health market service market criteria. The net result is that major inter-regional flows of patients are commonplace. These large inter-regional flows of patients greatly complicate the transfer payment system and the administration, planning and co-ordination of the RHAs.

**Table 2**  
**Summary of the "Pure" Population-based Model (1998-99 Comparable Funding Allocation)**

<b>RHA</b>	<b>RHA Name</b>	<b>31-Mar-98 Registry Population 1</b>	<b>Net* Per Capita Rate 2</b>	<b>Population Based Allocation 3 (=1 x 2)</b>	<b>Net Import/Exp ort Adjustments 4</b>	<b>Population Based Funding 5 (3+4+)</b>
1	Chinook	146,568	932.4	136,652,693	(5,484,733)	131,167,960
2	Palliser	88,585	860.9	76,260,032	(8,228,322)	68,031,710
3	Headwaters	71,016	775.1	55,046,329	(15,137,012)	39,909,317
4	Calgary	887,933	709.1	629,603,013	57,919,033	687,522,046
5	Region 5	52,487	885.5	46,475,073	(14,721,863)	31,753,210
6	David Thompson	184,359	823.5	151,814,206	(18,608,976)	133,205,230
7	East Central	103,971	943.6	98,103,567	(18,945,371)	79,158,196
8	WestView	89,065	639.4	56,946,130	(26,124,417)	30,821,713
9	Crossroads	39,266	825.3	32,407,188	(645,468)	31,761,720
10	Capital	801,029	801.9	642,333,185	115,780,586	758,113,771
11	Aspen	81,497	780.6	63,617,744	(23,563,932)	40,053,812
12	Lakeland	107,699	869.8	93,678,836	(23,950,262)	69,728,574
13	Mistahia	88,366	671.4	59,327,208	(1,876,357)	57,450,851
14	Peace	19,879	783.6	15,577,736	(2,250,513)	13,327,223
15	Keeweenok	25,731	735.8	18,933,307	(6,351,390)	12,581,917
16	Northern Lights	39,716	488.2	19,390,709	(3,273,926)	16,116,783
17	Northwestern	19,244	662.2	12,742,538	(4,537,077)	8,205,461
	<b>Total</b>	<b>2,846,411</b>	<b>776.0</b>	<b>2,208,909,493</b>	<b>0</b>	<b>2,208,909,493</b>

\*Weighted average capitation rate (weighted by each region's population structure).

Source: Alberta Health, "Regional Health Funding Manual: 1999-00 Funding", Edmonton, Alberta, March 1999  
[www.health.gov.ab.ca/rhas/popfund2/pb2a\\_t1.htm](http://www.health.gov.ab.ca/rhas/popfund2/pb2a_t1.htm)



(2) The health care needs of the population located within an RHA are affected by the age, sex and health status of the population. Alberta has elected to use certain socio-economic characteristics as proxies for measuring the health status of the population under the age of 65. All of these data are obtained from the population registry files of the Alberta Health Care Insurance Plan, which routinely gathers such information in the process of operating its province-wide health care insurance premium system. All together there are 124 population groups included in the population-based funding plan. This large number of categories arises from the use of 20 age groups ranging from < 1 to 90+ years of age, a gender (male and female) classification and four so-called socio-economic groupings comprised of: individuals on welfare under age 65; the working poor under age 65 (represented by individuals receiving subsidized health premiums); aboriginals under age 65; and other (the non-premium support group) under 65. Major inter-regional variations in the composition of the population exist among the various RHAs. Table 3 shows an over sixfold variation in the percentage of individuals over the age of 65 residing in certain RHAs (RHA 1 versus RHA 16, for example) and over double the difference in the percentage of the population on welfare residing in the Capital RHA (the highest region) versus RHAs 3,7,8,13 and 17, respectively. Over a 66 fold difference exists between the high and low RHAs (RHA 15 and 2) in terms of the percentage of aboriginal persons contained within the population of the RHA. Such demographic differences have important economic consequences. Annual health expenditures per person are the most sensitive to age. Gender is less important; however, there

are major differences in expenditures between males (lower) and females (higher) during the child-bearing years. Welfare recipients have higher than average levels of per capita health care expenditure, followed by the non-premium support group and aboriginal persons.<sup>14</sup>

(3) The funding attributed to each region (refer to Table 2, column 3) is determined by multiplying the total number of people contained in each of the 124 age groups aggregated in column 1 by the corresponding provincial weighted average health care expenditure per person (column 2). It is important to note that each RHA has a different capitation rate. This fact has led to considerable political debate and confusion among some members of the general public who have argued that equal per capita funding should be the norm used to allocate transfer payments among the RHAs. A moment's reflection is sufficient to clarify this matter. Every one of the 17 RHAs has a different population profile (refer to Table 3) and each demographic group has a different level of per capita health care spending. It follows that the overall composite rates established for various regions will reflect these differences.

The only situation in which the composite capitation rate would be identical across all RHAs is where the 124 cell demographic composition of all the RHAs are identical. The likelihood of this happening for all regions is exceedingly small. The "normal" situation is one in which there is a different composite capitation rate for each region.

**Table 3 - Population Composition by Socio-Economic Status as of March 31, 1998**

<b>RHA Registration Population Percentages</b>						
<b>Under 65</b>						
	<b>Age 65+</b>	<b>Aboriginal</b>	<b>Welfare</b>	<b>Premium Support</b>	<b>Non Premium Support</b>	<b>Total</b>
	%	%	%	%	%	%
1 Chinook	13.1	7.1	3.3	14.3	62.3	100.0
2 Palliser	12.9	0.5	2.3	12.1	72.1	100.0
3 Headwaters	10.1	5.1	1.6	10.6	72.6	100.0
4 Calgary	8.9	1.1	2.8	11.0	76.2	100.0
5 Region 5	12.6	5.7	2.7	13.4	65.5	100.0
6 David Thompson	10.7	5.3	3.9	12.6	67.4	100.0
7 East Central	14.4	0.6	2.0	14.4	68.7	100.0
8 WestView	7.4	3.3	2.1	9.8	77.4	100.0
9 Crossroads	11.2	5.0	3.0	12.8	68.0	100.0
10 Capital	10.5	2.2	4.4	12.5	70.4	100.0
11 Aspen	10.3	4.2	2.5	13.8	69.2	100.0
12 Lakeland	11.4	8.9	2.4	12.7	64.5	100.0
13 Mistahia	7.8	3.8	1.8	12.9	73.8	100.0
14 Peace	9.6	6.8	2.5	13.2	67.8	100.0
15 Keeweenok	5.3	33.4	2.5	8.9	49.9	100.0
16 Northern Lights	1.9	8.9	2.2	7.1	79.8	100.0
17 Northwestern	3.5	30.3	1.6	16.2	48.4	100.0
<b>Total</b>	<b>10.0</b>	<b>3.3</b>	<b>3.2</b>	<b>12.1</b>	<b>71.4</b>	<b>100.0</b>

(1) Source: Alberta Health, "Regional Health Funding Manual: 1990-00 Funding", Edmonton, Alberta, March 1999. [www.health.gov.ab.ca/rhas/popfund2/pb2ci\\_t2.htm](http://www.health.gov.ab.ca/rhas/popfund2/pb2ci_t2.htm)



(4) An almost twofold difference exists between the highest capitation rate (\$943 per capita) in the East Central RHA which has a relatively aged population, and Northern Lights RHA which has the lowest rate (\$488 per capita) and a young population. The weighted provincial average rate is \$776 per capita. The derivation of the weighted health care capitation rates set out in Table 2, column 2 is a complex task which is described in considerable detail in the Alberta Health Care Funding Manual (1999-2000). It is beyond the scope of this brief paper to enter into the details outlining the way these rates are established; however, certain general observations are worth noting. The robustness of the capitation rates depends upon the provincial government being able to access good utilization and cost data which accurately depicts what is happening in the RHAs. This has been a major problem since the introduction of the population-based funding system. The acute care hospital in-patient information has been the most reliable given the fact that considerable time and effort had been expended in trying to improve hospital costing methodologies and data gathering systems prior to the introduction of the population-based funding system. While the shortfalls in RHA data and costing have decreased markedly over the course of the past three years, the job is far from complete. All RHAs in Alberta are now required to submit financial and statistical Management Information Service (MIS) data which are reconcilable with each RHA's audited financial statements. In addition, good progress has been made in developing relatively strong data management and financial analysis teams working both within major RHAs and in joint provincial government RHA project groups.

(5) If all residents of a region received health care services within the region then the estimates of the expenditures set out in Table 2, column 3 could be taken as a measure of the magnitude of the provincial transfer payments that should be made to each RHA. As noted earlier, however, the Alberta government elected to give greater weight to political rather than to health care criteria in establishing the boundaries of its RHAs. The consequence of this structural flaw in the design of a regional health care system is reflected in major inter-regional movement by patients. This movement of patients means that an inter-regional payment system must be established if the regions providing services to non-residents are to maintain their financial viability and patients are going to be able to access needed services. Column 4 of Table 2, labeled Net Import and Export Adjustments, sets out the magnitude of the financial adjustments that would be carried out using the unmodified form of the Alberta population-based funding system. A negative sign indicates that an RHA is a net importer of services while a positive sign indicates that it is a net exporter. Regions that are net importers of services have their transfer payments reduced, while net exporters of services have their transfer payments

augmented. Reference to Table 2 indicates that the largest net exporter of RHA services in Alberta is the Capital Health Authority (CHA). The CHA's 1998-99 net exports amounted to approximately \$116M—an amount equal to 18 percent of the total transfer payments initially attributed to the CHA based solely on the population contained within its administrative boundaries. The largest net importer of health care services (-\$26.1M) is the WestView RHA located on the western boundaries of the Capital Health Authority. The boundaries of WestView are so badly misaligned that approximately 46 percent of the total provincial transfer payments made to WestView have to be paid to other RHAs (primarily the CHA).

(6) The system used to arrive at the value of net exports or imports is still being refined. As matters presently stand import/export activity must be identified on the basis of the existing information system. Import/export activity is obtained for hospital in-patient, hospital ambulatory, continuing care, home care and private clinics. A number of issues still need resolution in continuing care and home care. Once the activity levels are identified the problem of valuing the services arises. The procedure used for the most costly item (hospital in-patient and ambulatory care) is as follows:

...the same standard rates (scaled cost weights) used in determining the regional funding capitation rates are used to value identified import/export services....These rates are not estimates of actual cost (average or marginal), but they do relate to the estimated expenditures in the population-based funding allocations....<sup>15</sup>

It is important to note that it is one thing to use scaled cost weights to allocate transfer payments via the population-based funding system; it is a completely different matter however to use these weights as the basis for compensating a region for the inter-regional flow of services. The reason is that the population-based funding system allocates a lump sum total transfer payment to each RHA on a consistent basis using average provincial cost estimates. It is true that RHAs use these provincial lump sum transfer funds to deliver services to patients, but the relevant costs of delivering the services within each RHA as far as resource allocation matters are concerned are based on the actual total, average and marginal costs of production. These costs can vary markedly among RHAs and among institutions and programs located within an RHA. The net result is that winners and losers appear when province wide average costs are used as the basis for compensating the regions instead of the actual costs involved in providing services to non-resident patients. Albertans are free to seek health care from any physician or RHA that they choose. Refusing to treat non-residents is not an option open to RHAs for medically

necessary services which fall under the *Canada Health Act*, and it certainly is not an option in a system where numerous RHAs are incapable of meeting many of the basic health care needs of their residents and must rely on their neighbours to ensure that the population located within their jurisdiction receives proper care. It pays RHAs bordering the larger RHAs who operate a comprehensive service to minimize or neglect to provide certain high cost services and rely on their larger neighbours to pick-up the costs. Unfortunately for the larger RHAs, the actual costs incurred in providing these services cannot be recovered and the provincial compensation system does not adequately recompense them for the services they have provided. The financial burden imposed on the two largest RHAs in Alberta resulting from the flawed design of the RHA system and the difficulties involved in obtaining a fair settlement of regional accounts was partially recognized by the provincial government when it agreed to establish the Province Wide Services program. Through this program services which are unique to Calgary and the Capital RHAs are identified and funded outside of the population-based funding system on a cost-of-service basis. The problem is that this is only a partial resolution of a larger problem. In addition, the funding of some health services on an individual program basis tends to undermine the population-based funding program.

***Population-based Funding as One Element in the Set of Factors Determining the Total Funding of RHAs in Alberta***

The total transfer payments RHAs would be entitled to receive under the pure population-based model are set out in column 5 of Table 2. The total payments made to RHAs under what Alberta Health considers to be a strict application of their funding system consists of the pure population and the non-population-based funding component<sup>16</sup> (refer to the Full Formula Allocation Column in Table 4). This full formula allocation is compared with the actual funding allocations for 1998-99. The difference between the payments made to individual RHAs consists of a measure of the degree to which six of the RHAs (those with positive dollar amounts) were underfunded. The “No Loss Subsidy” Program moves RHAs closer to the

proposition that the distribution of transfer payments should be in accordance with the population-based funding model. Regions that are entitled to receive additional funding should receive the full amount of their transfer payments rather than being forced to subsidize RHAs which have experienced a decline in their provincial RHA funding.

While population-based funding may be the key instrument used to allocate transfer payments among RHAs, it is clear from Table 1 that other factors were taken into consideration in determining the amount of provincial funding that would flow to RHAs in fiscal 1999-00. The so-called 3% Guarantee is a classic example. The provincial government simply decided that in fiscal 1999-00, all RHAs in Alberta would receive a three percent increase over and beyond their actual 1998-99 funding level. The ostensible reason for this across the board increase was to introduce a greater degree of stability into the funding received by all regions. Population-based funding ensures that the funding received by an RHA will rise or fall with the growth and change in the composition of the population located within the region. This implies that unless offsetting steps are taken, the funding received by an RHA will be affected by both short and long run fluctuations in regional business cycles. The rate of growth in the population of an RHA can be expected to fall as a region experiences a recession and expand rapidly during a boom. Various lags in employment and population growth or decline will ensure that the variations in population-based funding do not directly correspond with these economic cycles. It is also the case that the payout all the RHAs will receive is dependent on how much money the provincial government is willing to put into the population funding system in the first place. In short, there is little doubt that a population-based funding model interjects a markedly greater degree of uncertainty into the budgeting decisions of individual RHAs than was the case when individual institutions were funded independently of the total population served by an institution. However, it is an open question whether ad hoc guarantees of minimum levels of health care funding, such as the 3% Guarantee, are the answer to the RHA stabilization issue. A population-based funding system envisages that funding will rise or fall in response to demographic and economic forces. If minimum guarantees are adopted as a policy then the process becomes quite asymmetric. Increases are funded to a guaranteed minimum and losses are prohibited.



**Table 4 - 1999-00 Funding for No Loss Subsidy Payment**

<b>RHA</b>	<b>1998\99 Comparable Funding</b>	<b>Full Formula Allocation</b>	<b>Dollar Difference Negative</b>	<b>Dollar Difference Positive</b>	<b>No Loss Subsidy Payments</b>
1 Chinook	136,640,229	137,256,381	0.00	616,152	616,152
2 Palliser	73,898,674	72,824,291	-1074383.00	0	0
3 Headwaters	42,528,256	42,286,246	-242010.00	0	0
4 Calgary	718,524,311	734,393,025	-0.00	15,868,714	15,868,714
5 Region 5	36,271,210	34,303,894	-1967316.00	0	0
6 David Thompson	138,247,323	139,266,844	0.00	1,019,521	1,019,521
7 East Central	98,955,730	91,875,367	-7080363.00	0	0
8 WestView	36,050,029	34,743,342	-1306687.00	0	0
9 Crossroads	32,429,589	33,121,684	0.00	692,095	692,095
10 Capital	786,452,316	804,470,506	0.00	18,018,190	18,018,190
11 Aspen	45,866,465	43,282,082	-2584383.00	0	0
12 Lakeland	84,327,620	72,438,145	-11889475.00	0	0
13 Mistahia	68,837,964	66,710,511	-2127453.00	0	0
14 Peace	19,742,328	16,232,434	-3509894.00	0	0
15 Keeweenok	16,265,766	15,663,292	-602474.00	0	0
16 Northern Lights	24,035,757	19,907,651	-4128106.00	0	0
17 Northwestern	11,878,060	12,175,933	0.00	297,873	297,873
Total	2,370,951,627	2,370,951,627	-36512545.00	36,512,545	36,512,545

Source: Alberta Health, "Regional Health Funding Manual: 1990-00 Funding", Edmonton, Alberta, March 1999  
[www.health.gov.ab.ca/nolossfunding.pb1d\\_t1.xls](http://www.health.gov.ab.ca/nolossfunding.pb1d_t1.xls)

Reference to Table 1 indicates that a small amount of capital funding (amounting to approximately \$15M) was introduced into the 1999-00 payout to RHAs. The introduction of a pro-rated equipment grant is simply a first step in recognizing a major funding problem RHAs are facing with respect to meeting a large backlog of capital equipment and facility requirement purchases. The provincial governments in Canada have partially balanced their budgets throughout much of the 1990s by markedly reducing their capital funding in municipalities, schools and health care. The bills are now coming due. One of the key questions is whether the funding of the new capital equipment and facilities expenditures should be handled through a system where the operating grants made to RHAs encompass an amount sufficient for the RHAs to finance the new acquisitions on their own, or whether separate programs should be developed which allow the province to control capital expenditures. As matters currently stand it appears that the province is prepared to use an adaptation of the population-based funding model to fund a modest amount of new equipment spending.

The Population Growth column in Table 1 employs the methodology previously described for calculating the “pure” population-based funding estimates. Adjustments are also made for growth in the non-population and protection, promotion and prevention pools. The growth in population is projected to September 1999, the mid-point in the current fiscal year for each RHA. The overall rate of growth for the population is assumed to equal 2.2 percent. Interestingly, a negative rate of growth was projected for the Peace RHA #14. The impact of the economic boom that Calgary is facing is reflected in the major increase in population slated for the Calgary RHA. Table 5 sets out the specifics of the adjustments for population growth based on projected population increases. As expected, Calgary is the major beneficiary—approximately 40 percent of the total increase in population growth funding for Alberta in 1999-00 was utilized by Calgary.

## **Conclusions and Observations**

The capitation method established by the Government of Alberta to fund its RHAs is a work of art which is not yet complete. The majority of the grants received by RHAs for operating purposes are based on the age and gender of the population, the socio-economic composition of the population base and the services provided by regions to residents of other regions. The information system and cost and utilization analyses needed to carry-out the complicated calculations involved in running such a transfer payment system has steadily improved since the population-based funding system was first instituted; however, much work still needs to be done. The areas that are creating many of the problems in the present system stem from the failure of the Government of Alberta to establish a rational set of Regional Health Authorities based upon a consideration of health service catchment areas. The inter-regional movement of patients is so large among a number of the small fragmented RHAs that an inordinate responsibility is placed on the inter-regional settlement system.

The continued growth of the Province Wide Funding System, coupled with the lack of inclusion of other major agencies within the population-based funding system is troublesome; however, such a tactic may not have been unreasonable given the need to get the main population-based system “up and running”. The challenge now is in taking the next step and determining whether a pure population-based funding system can actually work; if not a new funding system should be devised. Confidence will be lost in the fairness and reasonableness of a system which is continually being cobbled together and patched in response to the political pressures of the day.

**Table 5**



**1999-00 Funding for Population Growth**

<b>RHA</b>	<b>Projected Annual Population Growth</b>	<b>Funding Value for Growth</b>	<b>PPP 2.2%</b>	<b>Non-Pop. 2.2%</b>	<b>Total Funding for Population Growth</b>
	(Persons)	(\$)	(\$)	(\$)	(\$)
1 Chinook	922	1,686,044	120,130	133,945	1,940,119
2 Palliser	2,239	2,502,382	60,409	105,437	2,668,228
3 Headwaters	2,269	1,836,480	51,465	52,292	1,940,238
4 Calgary	31,361	18,742,836	578,954	1,031,162	20,352,952
5 Region 5	1,009	889,163	41,298	56,115	986,576
6 David Thompson	5,354	3,266,227	145,806	133,355	3,545,389
7 East Central	1,671	1,446,987	72,753	279,778	1,799,518
8 WestView	1,662	1,437,207	61,633	86,276	1,585,116
9 Crossroads	734	762,421	30,264	29,919	822,604
10 Capital	7,697	7,893,057	567,352	1,019,848	9,480,257
11 Aspen	711	1,208,822	61,073	71,022	1,340,917
12 Lakeland	2,293	1,366,436	90,301	59,611	1,516,347
13 Mistahia	2,162	1,164,227	62,552	203,713	1,430,491
14 Peace	-162	128,997	15,806	63,915	208,717
15 Keeweenok	360	400,405	31,894	67,790	500,089
16 Northern Lights	1,541	617,964	29,166	83,399	730,529
17 Northwestern	892	560,861	24,524	87,350	672,735
<b>Total</b>	<b>62,715</b>	<b>45,910,516</b>	<b>2,045,380</b>	<b>3,564,492</b>	<b>51,520,823</b>

Source: Alberta Health, "Regional Health Funding Manual: 1990-00 Funding", Edmonton, Alberta, March, 1999.  
[www.health.gov.ab.ca/rhas/popfund2/pb1d\\_t1.htm](http://www.health.gov.ab.ca/rhas/popfund2/pb1d_t1.htm)

The population-based funding system only deals with payments made to RHAs out of a pool of funds replenished each year by the provincial government as part of its annual budgetary deliberations. The criteria used to allocate funds to the health ministry vis-à-vis the other ministries competing for scarce provincial dollars will vary according to the fiscal and social priorities established by the province and the state of the provincial economy and international commodity markets. In short, the criteria used to put money into the population-based pool are not the same as those used to make payments out of the pool. The potential instability created by such a system is partially offset by three year business plans which set out the level of funding the provincial government intends to make available to the health ministry and its RHAs. While such plans are useful, the provincial government is committed to maintaining a balanced budget. If the stream of revenues flowing to the province is affected so adversely that a deficit budget would materialize then health spending would have to be cut and the proposed three year pay-ins into the population-based funding pool would be restructured accordingly. Short run stabilization features are built into the annual Alberta budget which would handle relatively small fluctuations in the general revenue of the province. The point at issue is whether attention needs to be directed towards developing a better, more structured long run stabilization fund for financing health care, or whether the health care system should continue to follow the traditional route and “take its chances” along with every other government program during recessionary periods.

A number of additional features of the population-based funding system are worth reflecting upon. First, the provincial government has only partially completed the reforms needed to modernize the Alberta health care system. The reform of the way medical services are delivered is still at best in its infancy. The funding of physicians is totally divorced from the funding of RHAs. The question of what happens as fee-for-service medicine and capitated RHAs meet head-on is worth some considerable thought. Physicians are still the gate-keepers for a very large part of the health care system. Should the capitation based funding of RHAs be expanded to include primary care physicians and/or specialists? Can a successful medicare system continue to be operated without meaningful integration of the medical and RHA planning and funding systems? Moreover, the population-based funding system is based on the premise that the need for health care rises or falls with the size and composition of the population, but this proposition ignores the role played by physicians in shaping the demand for health care. The transfer payments received by Alberta RHAs will rise or fall with changes in the population, all other things being equal; however, the number of physicians working within a particular RHA is not likely to rise or fall with modest changes in the

population of an RHA. In effect, fewer people may simply be treated more intensely by the same number of physicians. The demands by physicians and their patients for RHA services and facilities would remain unchanged at a time when the ability of RHAs to respond to these demands has been reduced due to a fall in transfer payments. The question is: who has made the correct interpretation of the needs of the population—the doctors and their patients, or the RHAs and the provincial funding authorities? Finally, a great deal of effort has been put into the Alberta population funding initiative. It is not unreasonable to suggest that despite its shortcomings and the need for substantial upgrading and improvement that the Alberta population-based funding model is operational and capable of being transformed into a viable long run transfer payment system. One thing is clear, the system has two structural problems—too many RHAs with overlapping boundaries and a lack of any concrete plan for integrating fee-for-service physicians into a capitated payment system for Regional Health Authorities. If these matters are not resolved the population-based funding system may eventually fail due to a stream of never-ending management and access problems that manifest themselves into political problems that health care administrators and boards will never be able to solve.

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1. Actually 19 rather than 17 RHAs were created. Seventeen of these RHAs deal with the full gambit of health care ranging from acute hospital care to home care, continuing care and public health care. Two of the 19 RHAs—the Provincial Cancer Board and the Alberta Mental Health Board—are highly specialized and deal with only a facet of the health care system. All references to RHAs are cast within the framework of the 17 RHAs unless specific reference is made and the reader’s attention is directed to the activities of the two missing RHAs.

2. Certain religious and volunteer boards were retained; however, they were limited in their powers and have to negotiate contracts with RHAs concerning the way their institutions operate within a regional health care system. The contract between the Caritas group and the Capital Health Authority regarding the way the Grey Nuns and Misericordia hospitals function within a regionally coordinated and planned health care system is an illustration of the complexity such an arrangement has created for certain of Alberta’s RHAs.

3. Alberta Health, “Statistical Supplement 1995-96 of the Alberta Health Care Insurance Plan”, Edmonton, Alberta.

4. R.S.C. 1985, C.F-8, ss. 13-25 as am. by S.C. 1995, c.17, ss. 48-53. Part V of the Act is entitled “Canada Health and Social Transfer.”



5.S.C. 1957, c.H-8.

6.S.C. 1966-67, c. 64.

7.R.S.C. 1985, c. C-6.

8.In an unprecedented letter dated January 22, 1999, the 10 provincial premiers and the territorial leaders informed the Prime Minister of Canada that:

..All Premiers and Territorial leaders are committed to the principles of universality, comprehensiveness, accessibility, portability and public administration. This letter confirms that any additional funds made available from the Government of Canada for health care through existing CHST arrangements will be fully committed to core health services and programs in accordance with health priorities within our respective provinces and territories....

9.The possibility of creating miniature provincial ministries of health within the larger RHAs can not be ignored. Similarly, the need to maintain common standards across the province and support the small RHAs is an ongoing problem which will almost assuredly necessitate the re-hiring of more provincial government staff or consultants or the transfer of resources to small RHAs.

10.[www.health.gov.ab.ca/funding/fundpop/htm](http://www.health.gov.ab.ca/funding/fundpop/htm)

11.Alberta Health, "Regional Health Funding Manual 1999-2000", Health Resourcing Branch, Edmonton, Alberta, March 1999. [www.health.gov.ab.ca/rhas/popfund2/pb2ciii.htm](http://www.health.gov.ab.ca/rhas/popfund2/pb2ciii.htm).

12.Reference to the Alberta Health, "Regional Health Funding Manual for 1999-2000" Section 3 reveals that there are 16 programs contained within this category. A brief description and definition is provided for the interested reader. [www.health.gov.ab.ca/rhas/popfund2/pb2diii.htm](http://www.health.gov.ab.ca/rhas/popfund2/pb2diii.htm).

13.The \$2.8B worth of total transfer components is composed of the total \$2.5B in transfer payments noted in Table 1 for 1999-00 and the funding for Province Wide Services which is equal to \$254M.

14.*Supra* note 11.

15.*Ibid.*

16.Refer to the discussion of the No Loss Subsidy Contained Within the 1999-00 Alberta Regional Health Funding Manual.

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