Public Health Funding Approach:
Report from the ad hoc Funding Task Team

Final Report

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Executive Summary

In Nova Scotia, Public Health Services are delivered in nine District Health Authorities (DHAs). In the past public health resources were allocated to DHAs using various methodologies, generating discussions as to whether funding was distributed equitably. In the spring of 2005, the issue of allocation of public health resources to DHAs was identified as a priority item.

A funding task team, comprised of provincial and district public health and health promotion representatives, was commissioned with the mandate of developing a formal approach for the allocation of **new** DHA operational resources for public health. Allocation from the province to the districts as well as allocation at the provincial level was considered in the approach.

The process of developing the public health funding approach included input from local public health officials, public health departments across the country, other government departments experienced in the development of funding approaches, as well as the literature. Throughout the development process decisions were made collaboratively using the best available evidence.

With the resulting public health funding approach, seventy percent of any new funding available to public health is allocated to the DHAs with the remaining thirty percent allocated to the province. The district level allocation supports service delivery, local planning, implementation, and local evaluation. The provincial level allocation supports staffing, planning, policy development, evaluation, and consultation. However, this district level/provincial level split may vary depending on the intended purpose of the funding.

The public health funding approach aims to equitably allocate new public health resources to DHAs, while recognizing regional differences. It is comprised of: (1) *base funding* that considers the fixed costs of program delivery; (2) *population-based funding* that considers the size of the population served by the program; and (3) *needs-based funding* that considers the geography, socioeconomic status (education & income) and health of the population served. Available funding is divided equally (one third) between each of these three components.

The newly developed funding approach is intended for use by the Public Health branch of Nova Scotia Health Promotion and Protection. It will be piloted for the 2006/2007 and 2007/2008 budget cycles, during which time an evaluation framework will be developed to assess the use of and satisfaction with the approach.

Introduction

In Nova Scotia, Public Health Services are delivered in nine District Health Authorities as defined by the *Health Authorities Act*.[1] However, Public Health Services are currently managed on a Shared Service Area level. That is, groupings of several District Health Authorities (DHA) sharing resources to achieve critical mass.

Until recently, a formal process for the allocation of resources for public health programs did not exist. In the past resource allocation decisions were made using various methodologies, stimulating much discussion regarding the "fairness" of these decisions. In 2005, additional funding provided to each DHA to support the hiring of one new public health nutritionist, raised questions around the equity of one position per district. In June, 2005 a discussion paper comparing public health service demand and delivery capacity around the province was brought forward to the Public Health Working Group[i]. The issue of resource allocation was identified as a priority item and was brought forward to senior staff as well as the Chief Executive Officers of the DHAs.

A funding task team, comprised of provincial and district public health and health promotion representatives was commissioned with the mandate of developing an agreed upon approach for the allocation of **new** DHA operational resources for public health. Allocation from the province to the districts as well as allocation at the provincial level was to be considered in the approach. The funding task team was accountable to the Assistant Deputy Minister of Nova Scotia Health Promotion and Chief, Program Delivery for the Department of Health. This report provides the details of the funding approach that was developed by the Task Team.[ii]

[i] The Public Health Working Group is comprised of Provincial Public Health Staff, Directors of Public Health from the four Shared Service Areas, and staff from Nova Scotia Health Promotion and Protection.

[ii] On February 23, 2006 a new Department, Nova Scotia Health Promotion and Protection was announced, combining Nova Scotia Health Promotion, the former Public Health branch of the Department of Health, and the Office of the Chief Medical Officer of Health. The work described in this report was completed prior to this announcement.

Guiding Principles

The Task Team met for the first time in August of 2005. At this initial meeting the following guiding principles were established to direct the work of the group. The guiding principles are grouped under three themes; (1) the rationale for developing the approach, (2) the process for developing the approach, and (3) fixed considerations.

(1) Rationale for developing a resource allocation approach:

- To support improving the health of the province as a whole
- To support provincial and local activities
- To benefit the Public Health System as a whole and position us to move forward
    - Approach intended only for new resources

(2) The *process* of developing a resource allocation approach will…

- Be open and transparent
- Be informed by the best available data and research
- Be consistent with the Public Health Review
- Consider the system needs
- Be kept simple
- Not miss good while looking for perfect

(3) Fixed Considerations:

- F/P/T funding requirements must be considered and may not be negotiable
- Public Health resources are and will continue to be in place to support the Public Health system

Background & Literature Review

A review of the literature (years 1996-2006, PubMed) revealed very little on funding approaches related specifically to public health. However, several examples of funding approaches related to the delivery of health care services and/or hospitals were found.[2-5] Although, not specific to public health, the purpose of needs-based funding and capitation models for health care services is relevant for public health. These methods aim to equitably allocate resources to regions while recognizing different regional needs.[3-5] The literature review also revealed relevant information on defining and measuring population health needs that will be discussed in the upcoming section on needs-based funding.

In addition to a review of the literature, local information sources were consulted. Examples of funding approaches developed by Nova Scotia Addiction Services, Mental Health Services, and the Department of Education were considered. These examples provided useful insight into the process of developing an approach by highlighting the importance of collaboration and transparency.

The four Directors of Public Health Services provided their thoughts on the important factors influencing Public Health Services in the Province's four shared service areas. The factors identified most often were service delivery to rural areas, socioeconomic status and size of the population. CEOs of the DHAs also recommended that fixed costs associated with program operations, population size served by a program, and burden of illness or other determinants of health that impact the demands made upon services be considered in the funding approach.

Current approaches for the allocation of public health resources in other provinces/territories were also investigated. Funding formulae for the allocation of the overall health budget (including public health) to regional health authorities and for the allocation of health care resources (e.g. hospitals) to regional health authorities were identified for several provinces. However, only two provinces were identified as *using* or *working on* an approach for the allocation of resources specific to public health.[6-7] As was previously the case in Nova Scotia, many Public Health funding allocation decisions across Canada are made based on what has been done historically.

Alberta has a defined approach for the distribution of their overall Protection, Prevention and Promotion budget to Regional Health Authorities (RHA). The funding is divided among 3 broad age groups: ages 0-19 (62%), ages 20-64 (26%), ages 65+ (12%). Next, the population within each RHA is weighted based on socio-economic status: Regular (1), Subsidy (2), Aboriginal (5), Welfare (5). A region's proportion of funding from each of the age groups is determined by that region's proportion of the weighted population within the age groups. Age groups and weightings were derived from the experience of personnel involved with Protection, Prevention and Promotion programs. [6]

In 1996 Ontario developed an approach for the equitable distribution of Public Health funding cuts. This approach considered population health needs (standardized potential years of life lost ratio), socioeconomic status (income and education), and service costs (geographic dispersion and home language).[8] The report detailing this approach provided useful information related to the selection of population health needs indicators, however consultation with senior public health staff in Ontario revealed that implementation of this approach was challenging. In 2001 a similar approach was proposed for the allocation of provincial funding for public health programs and services however, this approach was never implemented.[9] Currently, Ontario is in the process of a three-year plan to rebuild public health. As part of this process a public health funding subcommittee has been formed to re-examine the issue of resource allocation approaches.[7]

Methodology

Critical to the development of the public health funding approach was the iterative and collaborative process. Once the background work had been completed the Funding Task Team worked with Community Counts[iii] to develop a draft approach. The approach required several decisions to be made with respect to the components, indicators, and weightings that would form the basis of the approach. To ensure these decisions were collaborative and reflective of public health practice the funding task team brought together the Public Health Working Group to get consensus on the components, indicators, and weightings required for the approach. It was important to agree on these theoretical decisions of what would be best for the health of the province prior to examining the figures generated by the approach. This reduced the likelihood that the approach would be biased by subjective views based on figures showing individual benefits. Once the approach was approved by the Public Health Working Group it went to the Executive Committee of Nova Scotia Health Promotion and the Senior Leadership Team of the Department of Health for approval and was subsequently shared with the VPs of Community Health and the Council of CEOs.

[iii] Community Counts is a provincial data system that manages and provides easy access to socio-economic, demographic, and health data by various geographic boundaries (community, community health board, district health authority).

The Approach

Provincial Level Allocation:

The funding approach considers allocation from the province to the districts as well as allocation at the provincial level. The Public Health Review[iv] supports investment at both levels and it was felt that it was important to acknowledge this with the new approach. Currently, the provincial/local budget distribution is approximately 30% remaining at the provincial level and 70% allocated to the district level. It was agreed that this is a good starting point, but that this provincial/district distribution will be flexible dependent upon the intended purpose of the available funding. The provincial level allocation is intended to support staffing, planning, policy development, evaluation, consultation and the district level allocation is intended to support service delivery, local planning, implementation, and local evaluation.

District Level Allocation:

To determine funding allocations for the DHAs the public health funding approach is comprised of three components:

1. Base funding
2. Population-based funding
3. Needs-based funding

Base funding (1/3) + Population-based funding (1/3) + Needs-based funding (1/3)

Given that some areas of the province can make the case for more emphasis on needs-based funding, whereas others can argue for more population-based funding, and in the absence of evidence to suggest otherwise, allocating a third of the available funding to each of these components was agreed to be the most equitable approach.

Integral to evidence-based funding decisions is access to or availability of relevant data and indicators that capture differences in population needs between health districts.[11] Nova Scotia is fortunate to have an excellent resource in Community Counts. Community Counts played an essential role in the development of the funding approach and was the primary source of data.

The following section describes each of the funding approach components in more detail.

[iv] The Public Health System in Nova Scotia has recently undergone an external review. [10]

Base Funding

There are certain basic costs associated with public health program delivery that are independent of population size, geographic location, or other determinants of health (e.g. health promotion campaign). The funding approach includes base funding to support these fixed costs associated with program delivery.

To calculate the base funding, one third of the total district level allocation (provincial level allocation removed) is divided by the total number of administrative units (see example below). The administrative unit is the District Health Authority as this is the unit on which local public health budgets are completed.[v]

EXAMPLE:

Base funding (1/3) + Population-based funding (1/3) + Needs-based funding (1/3)

Base funding = District level allocation ÷ 3
$700,000.00 ÷ 3 = $233,333.33

Base Funding per DHA = Base funding ÷ 9
$233,333.33 ÷ 9 = $25,925.93 per DHA

Reminder: Total available funding: $1,000,000.00
Provincial level allocation (30%): $300,000.00
District level allocation (70%): $700,000.00

[v] Funding is not allocated to the IWK Health Centre because the funding approach is to be used for programs delivered by Public Health Services in the DHAs.

Population-Based Funding

One of the factors that determine the costs associated with the delivery of public health programs is the size of the population served by the program. The funding approach allocates a third of available funding based on population size. When determining the population-based funding, consideration will be given to the intended purpose of the funding and the relevant "target" population. In most cases population-based funding will be calculated using the total population, however in cases where funding is targeted at a specific population (e.g. new babies) population-based funding may be calculated using the specific target population (e.g. number of births).

To calculate the population-based funding per DHA, the percentage of the population in each DHA is applied to the total population-based funding (see example below). Population data is obtained through Community Counts or other relevant Nova Scotia sources (e.g. Reproductive Care Program).

EXAMPLE:

Base funding (1/3) + Population-based funding (1/3) + Needs-based funding (1/3)

Population-based funding = District level allocation ÷ 3
$700,000.00 ÷ 3 = $233,333.33

Population-based funding per DHA = DHA % of population * Population-based funding

DHA	Total Population	% of population	Population Funding per DHA
1	59,320	6.53	$15,243.68
2	62,615	6.90	$16,090.40
3	80,645	8.88	$20,723.64
4	67,936	7.48	$17,457.76
5	32,605	3.59	$8,378.62
6	46,965	5.17	$12,068.77
7	47,155	5.19	$12,117.59
8	129,700	14.28	$33,329.48
9	381,064	41.97	$97,923.40
	908,005		**$233,333.34**

Note: % of population values are rounded in table, however rounding is preformed at last step of calculations[12]

Reminder: Total available funding: $1,000,000.00
Provincial level allocation (30%): $300,000.00
District level allocation (70%): $700,000.00

Needs-Based Funding

One third of available funding is allocated to needs-based funding. Needs-based funding considers the needs of the population served with respect to geography, education, income, and health. These factors were identified by the Directors of Public Health as the major factors influencing public health services in Nova Scotia and are supported in the literature as significant determinants of health.[13-17]

Where possible, the indicators of need used in the approach are calculated on a Community Health Board (CHB)[vi] level. The rationale for calculation at this level is that it captures differences that exist within District Health Authorities. For example, Capital District Health Authority includes both Halifax Peninsula and Eastern Shore - Musquodobit CHBs that have respectively 16.9 and 37.3 percent of their populations with less than high school education. Similarly, Cape Breton District Health Authority includes both East Cape Breton County and Victoria County CHB that have respective populations of 83.6 and 9.3 per kilometer of road. It also makes sense to use CHB because CHB is used as a unit of planning at the DHA level.

Geography

Geography is an important determinant of health. Geographic variations in health exist around the world, within Canada, and within Nova Scotia.[17-19] Geography impacts population health by means of an area's socioeconomic status, access to and availability of health services, access to and availability of social services and opportunities, the local environment, and the local culture related to diet and behaviours such as smoking.[20,21]

Geography also impacts the delivery of public health services in several ways. In rural areas, widely distributed small populations impact staffing costs associated with time and travel.[20] Also, in rural areas public health services often operate out of several small offices as opposed to one head office, thus impacting overhead costs. Rural areas also face challenges recruiting and retaining qualified staff, particularly if a position is less than full-time.

Fifty percent of the needs-based funding is allocated to geography. This needs-indicator was weighted most heavily because in discussions with the Public Health Services Directors in each of the Shared Service Areas geography was identified and discussed most often as a factor that drives public health services. Also, discussions with Ontario revealed that they felt they did not put enough emphasis on this factor in their 1996 approach to cuts.

In consultation with Community Counts and the Public Health Working Group the geography indicator that was agreed upon for use in the funding approach is *population per kilometer of road*. This indicator provides a realistic measure of the impact of geography on public health

[vi] Community Health Boards (CHB) are voluntary, community-based boards regulated by the Nova Scotia Health Authorities Act. CHBs develop annual community health plans that recommend priorities for the delivery of community-based health services for the improvement of the health of the community. There are 37 CHBs in the province.

service delivery because it captures how public health travels to deliver services. Population density was also considered as a potential indicator however it was not selected because it is subject to distortion due to large unpopulated areas (e.g. National parks). These data are available through Community Counts.

Community Health Boards were categorized by *population per kilometer of road*. The categories were created based on natural breaks in the data. A limitation of this indicator is that areas with few total roads may be subject to misclassification. To account for this limitation population density was also considered when categorizing CHBs based on *population per kilometer of road*. This resulted in one CHB (North Inverness) being re-categorized based on its *population density*. Appendix B presents the CHBs categorized by *population per kilometer of road* and a map depicting these categories. The categories were confirmed and finalized based on the knowledge and experience of the Public Health Working Group.

Next, the geography indicator categories are assigned the following weights. The weighting factors were determined arbitrarily, but agreed upon by the Public Health Working Group.

Category	**Weight**
1	2
2	1.75
3	1.50
4	1.25
5	1

The weighting factor is then applied to the CHB populations. Weighted CHB populations are summed to provide the weighted population for the DHA. To determine a DHA's share of the available geography funding, the percentage of the weighted population is applied to the total geography allocation.

EXAMPLE:

Base funding (1/3) + population-based funding (1/3) + needs-based funding (1/3)

Geography funding = (District level allocation ÷ 3)*0.50
($700,000.00 ÷ 3)*0.5 = $116666.67

DHA: South Shore Health

CHB	Population	Weighting	Weighted Population
Lunenburg County	48,045	1.5	72,067.5
Queens County	11,725	1.75	20,518.75

DHA weighted population = 92,586.25
Nova Scotia weighted population = 1,203,933.75

Geography funding per DHA = (DHA weighted population/NS weighted population)*Geography Funding

92,586.25/ 1,203,933.75*$116666.67 = $8,972.03

Reminder: Total available funding: $1,000,000.00
Provincial level allocation (30%): $300,000.00
District level allocation (70%): $700,000.00

Socio-economic Status:

Socio-economic status plays a significant role in population health. It will be included in the funding approach using both education and income indicators. Public Health Services Directors in each of the Shared Service Areas identified both education and income as factors that impact public health services in the province.

Twenty-five percent of the needs-based funding is allocated to education and ten percent is allocated to income. The relationship between these two indicators is complex and intertwined.[22] More emphasis is placed on education than income in the funding approach to account for the fact that recent literature relevant to public health identifies education as a stronger determinant than income.[15,23,24] Also, in Nova Scotia there are regions where local employment results in high income earners with low education.

Education:

Education is well established as a determinant of health.[13,22,25,26] Education impacts population health in a number of ways. For example, it impacts knowledge and awareness of potential risk factors for disease and participation in health promoting activities.[26] Education is also highly positively correlated with income as higher education levels often lead to higher paying employment.

In consultation with Community Counts and the Public Health Working Group the education indicator that was agreed upon for use in the funding approach is *percent of population with less than high school education*. This information is collected as part of census data and is accessed through Community counts. *Percent of population with less than high school education* was selected over *Percent of population with less than grade nine education* because it offered more differentiation between CHBs than the latter (Range:< highschool = 16.9%-52.7%; Range:< grade nine = 4.2% - 25.1%).

Community Health Boards were categorized by *percent of population with less than high school education*. The categories were created based on natural breaks in the data. Appendix B presents the CHB's categorized by *percent of population with less than high school education* and a map depicting these categories. The categories were confirmed and finalized based on the knowledge and experience of the Public Health Working Group.

Next, the education indicator categories are assigned the following weights. The weighting factors were determined arbitrarily, but agreed upon by the Public Health Working Group.

Category	Weight
1	1.3
2	1.24
3	1.18
4	1.12
5	1.06
6	1

The weighting factor is then applied to the CHB populations. Weighted CHB populations are summed to provide a DHA weighted population. To determine a DHAs share of the available education funding, the percentage of the weighted population is applied to the total education funding.

EXAMPLE:

Base funding (1/3) + population-based funding (1/3) + needs-based funding (1/3)

Education funding = (District level allocation ÷ 3)*0.25
($700,000.00 ÷ 3)*0.25 = $58,333.33

DHA: South Shore Health

CHB	Population	Weighting	Weighted Population
Lunenburg County	48,045	1.18	56,693.10
Queens County	11,725	1.24	14,539.00

DHA weighted population = 71,232.10
Nova Scotia weighted population = 1,027,027.16

Education funding per DHA = (DHA weighted population/NS weighted population)* Education Funding

71,232.10/ 1,027,027.16*$58,333.33= $4,045.86

Reminder: Total available funding: $1,000,000.00
Provincial level allocation (30%): $300,000.00
District level allocation (70%): $700,000.00

Income:

Income has also been established as an important social determinant of health.[13,14,22,27] Income impacts population health through access to things such as healthy foods; clean, safe neighbourhoods; and physical activity opportunities (e.g. fitness centre membership). It has also been suggested that income is related to population health through the physiological effects of stress.[22] Where those with higher incomes experience less stress than those with lower incomes.

In consultation with Community Counts and the Public Health Working Group the income indicator that was agreed upon for use in the funding approach is *median household income*. This information is collected as part of census data and accessed through Community Counts. *Median household income* was selected over *Statistics Canada's low income cut-offs* because *median household income* is less complex and represents the total combined income of all members of a household 15 years of age and over. It includes income from paid employment, self-employment, government income such as Canada Child Tax benefits, Old Age Security, Employment Insurance, Canada Pension Plan, income from investments pensions and other money income. Also, in comparison to indicators of individual income, household income is more reflective of the standard of living and opportunities that occur when household members share goods and services.[28] By using *median household income*, the data are not biased by outliers.

Community Health Boards were categorized by *median household income*. The categories were created based on natural breaks in the data. Appendix B presents the CHB's categorized by *median household income* and a map depicting these categories. The categories were confirmed and finalized based on the knowledge and experience of the Public Health Working Group.

Next, the income indicator categories are assigned the following weights. The weighting factors were determined arbitrarily, but agreed upon by the Public Health Working Group.

Category	Weight
1	1.3
2	1.225
3	1.15
4	1.075
5	1

The weighting factors are applied to the CHB populations. Weighted CHB populations are summed to provide a DHA weighted population. To determine a DHAs share of the available income funding, the percentage of the weighted population is applied to the total income funding.

EXAMPLE:

Base funding (1/3) + population-based funding (1/3) + needs-based funding (1/3)

Income funding = (District level allocation ÷ 3)*0.10
($700,000.00 ÷ 3)*0.10 = $23,333.33

DHA South Shore Health

CHB	Population	Weighting	Weighted Population
Lunenburg County	48,045	1.15	55,251.75
Queens County	11,725	1.225	14,363.13

DHA weighted population = 69,614.88
Nova Scotia weighted population = 1,019,450.60

Income Funding per DHA = (DHA weighted population/NS weighted population)*Income Funding
69,614.88/1,019,450.60*$23,333.33= $1,593.36

Reminder: Total available funding: $1,000,000.00
Provincial allocation (30%): $300,000.00
District level allocation (70%): $700,000.00

Health:

The current health status of a population provides an indication of a population's relative needs for health intervention or services. There are a number of summary measures used to reflect a population's health. One of the most commonly used measures is self-rated health because it reflects an individual's perceptions of his or her health and is positively correlated with several other population health measures.[11,22,29]

At this point in time *self-rated health* is the only population health indicator readily available at the DHA level. It is not available at the CHB level. Therefore, *self-rated health (percent rating health as fair or poor)* was selected as the health indicator for use in the funding approach. *Self-rated health* is collected as part of the Canadian Community Health Survey and accessed through Community Counts.

District Health Authorities were categorized by *self-rated health (percentage rating their health as fair or poor)*. The categories were created based on natural breaks in the data. Appendix B presents the DHAs categorized by *self-rated health*. The categories were confirmed and finalized based on the knowledge and experience of the Public Health Working Group. There was some discussion as to whether *self-rated health* is the best indicator therefore access to additional population health measures will be explored further.

Next, the health indicator categories are assigned the following weights. The weighting factors were determined arbitrarily, but agreed upon by the Public Health Working Group.

Category	Weight
1	1.3
2	1.225
3	1.15
4	1.075
5	1

The weighting factors are applied to the DHA populations. To determine a DHAs share of the available health funding, the percentage of the weighted population is applied to the total health funding.

EXAMPLE:

Base funding (1/3) + population-based funding (1/3) + needs-based funding (1/3)

Health funding = (District level allocation ÷ 3)*0.15
($700,000.00 ÷ 3)*0.15 = $35,000.00

DHA	Population	Weighting	Weighted Population
South Shore Health	59,320	1.225	72,667

Nova Scotia weighted population = 986,416.08

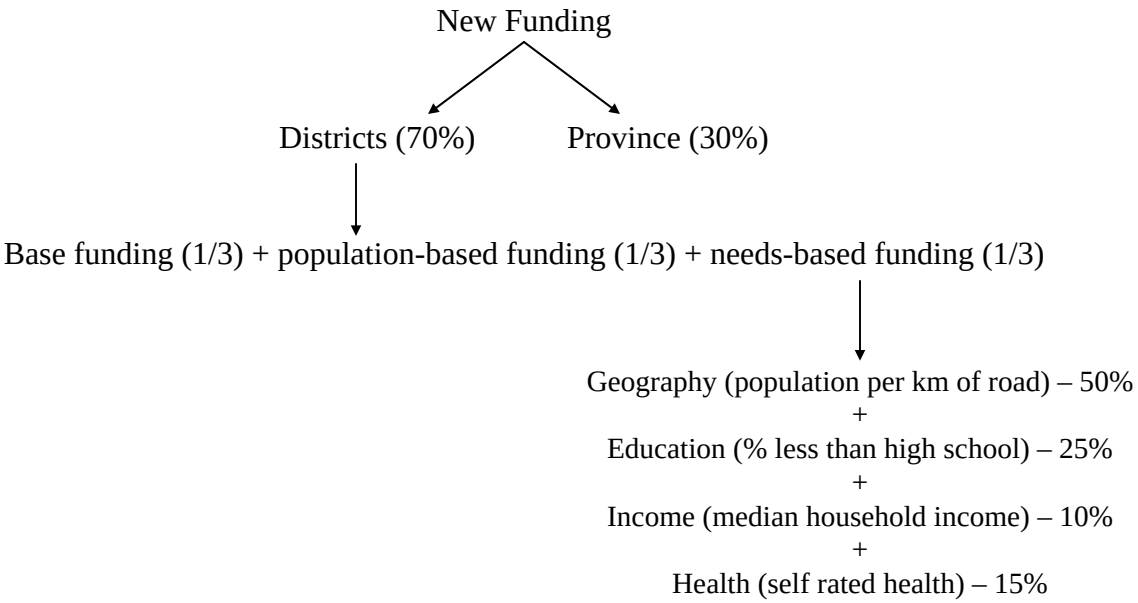
Health Funding per DHA = (DHA weighted population/NS weighted population)*Health Funding

72,667/986,416.08*$35,000.00= $2,578.37

Reminder: Total available funding: $1,000,000.00
Provincial allocation (30%): $300,000.00
District level allocation (70%): $700,000.00

Once need-based allocations have been determined for each DHA these amounts are summed per DHA and added to the respective base and population-based allocations.

Summary of Approach



EXAMPLE:

New Funding:	$ 1,000,000.00
Districts:	$ 700,000.00
Province:	$ 300,000.00
Total Base funding:	$ 233,333.33
Total Population- based funding:	$ 233,333.33
Total Needs-based funding:	$ 233,333.33
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Base funding per DHA:	**$ 25,925.93**
Population based funding per example DHA:	**$ 15,243.68**
Needs-based funding per example DHA:	
Geography	**$ 8,972.03**
Education	**$ 4,045.86**
Income	**$ 1,593.36**
Health	**$ 2,578.37**
Total received for example DHA	**$ 58,359.23**

Using the Approach & Next Steps

The funding approach described in this report is intended for use by the Public Health branch of Nova Scotia Health Promotion and Protection. When new funding becomes available decisions with respect to the provincial and local distributions as well as the target population will be made collaboratively by the Public Health Working Group. The funding approach will be piloted for the 2006/2007 and 2007/2008 budget cycles, during which time an evaluation framework will be developed to assess the use of and satisfaction with the approach. Also during this time access to potential population health measures to be used in place of self-rated health will be explored further.

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APPENDIX A

Members of the Public Health Working Group

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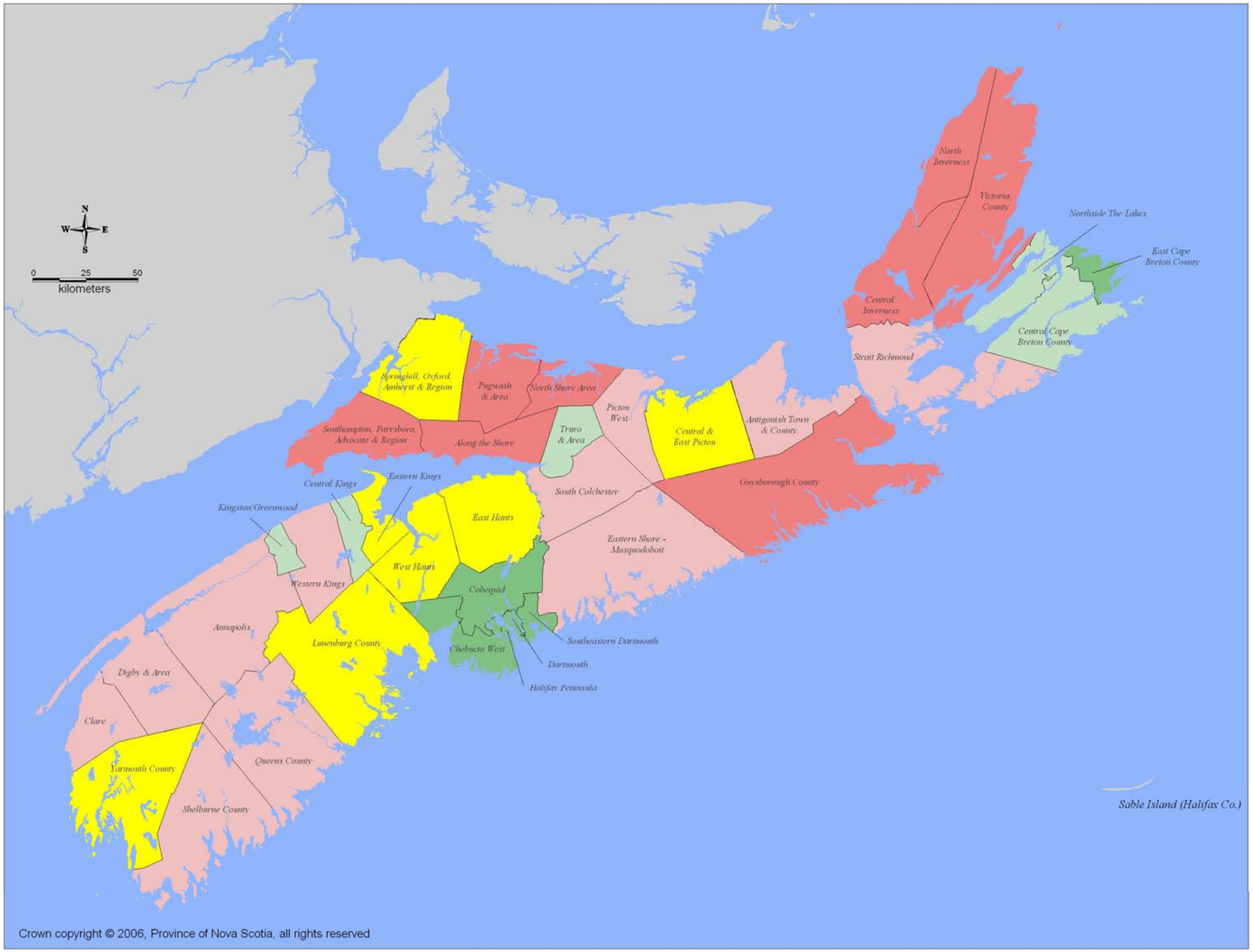
APPENDIX B:

Needs-Based Funding Indicators: Categories & Maps

Community Health Boards Categorized by Geography (Population/km of road)

CHB Name	Population per Km Road	Geography Category
Category 1 (6.8 pop/km – 12.2 pop/km)		
Southampton, Parrsboro, Advocate and Regions	6.8	1
Pugwash and Area	7.0	1
North Shore Area	7.7	1
Guysborough County	8.6	1
Victoria County	9.3	1
Central Inverness	10.7	1
Along the Shore	12.2	1
North Inverness*	19.7	1
Category 2 (12.7 pop/km-20.6 pop/km)		
Strait Richmond	12.7	2
Pictou West	12.7	2
South Colchester	13.9	2
Queens County	14.0	2
Annapolis	15.4	2
Clare	16.0	2
Antigonish Town and County	17.2	2
Eastern Shore - Musquodoboit	19.3	2
Digby and Area	19.3	2
Western Kings	19.4	2
Shelburne County	20.6	2
Category 3 (22.0 pop/km-28.7 pop/km)		
Lunenburg County	22.0	3
East Hants	22.9	3
Springhill, Oxford, Amherst and Regions	24.7	3
Yarmouth County	25.7	3
West Hants	25.8	3
Eastern Kings	25.9	3
Central and East Pictou	28.7	3
Category 4 (43.8 pop/km-54.3 pop/km)		
Northside The Lakes	43.8	4
Central Cape Breton County	48.4	4
Kingston/Greenwood	49.4	4
Central Kings	50.0	4
Truro & Area	54.3	4
Category 5 (83.6 pop/km-277.0 pop/km)		
East Cape Breton County	83.6	5
Cobequid	88.0	5
Southeastern	126.1	5
Chebucto West	126.5	5
Dartmouth	178.7	5
Halifax Peninsula	277.0	5
Nova Scotia	**31.8**	

* North Inverness was included in category 1 based on its population density



Geographic Weighting Categories

For Public Health Funding Approach

Geographic Weighting Category

5 - Lowest Weight	(6)
4	(5)
3	(7)
2	(11)
1 - Highest Weight	(8)

Note: These categories have been determined largely based on population per kilometer of road. Each category is assigned a weight to allow for additional travel coses related to delivery of programs and services.

NOVA SCOTIA

Finance

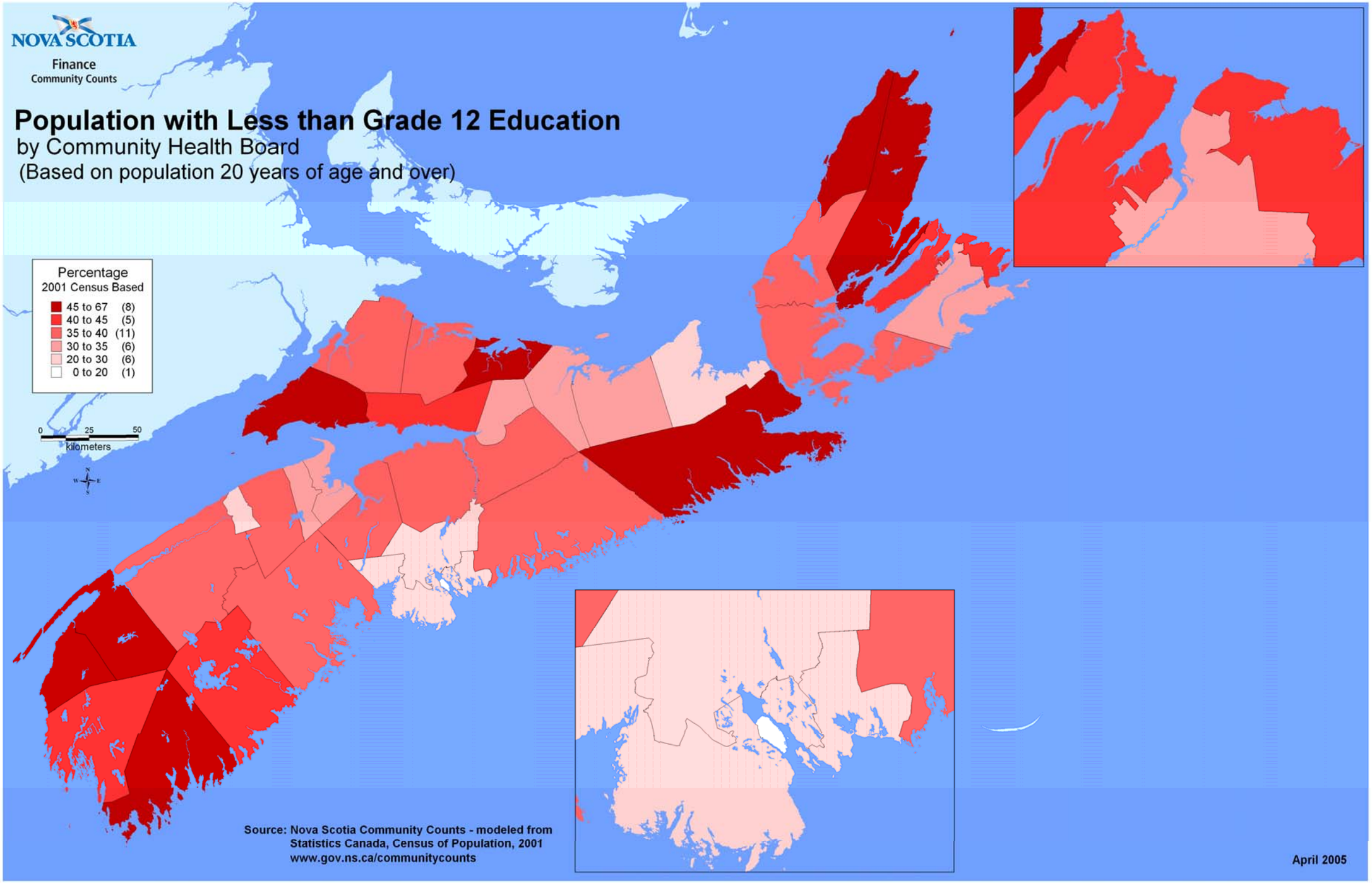
Community Counts

March 2006

Source:
Population density modeled by Nova Scotia Community Counts.
Original population data provided by the 2001 Census of Population.
Water boundaries are from DMTI CanMap Water version 2.1.

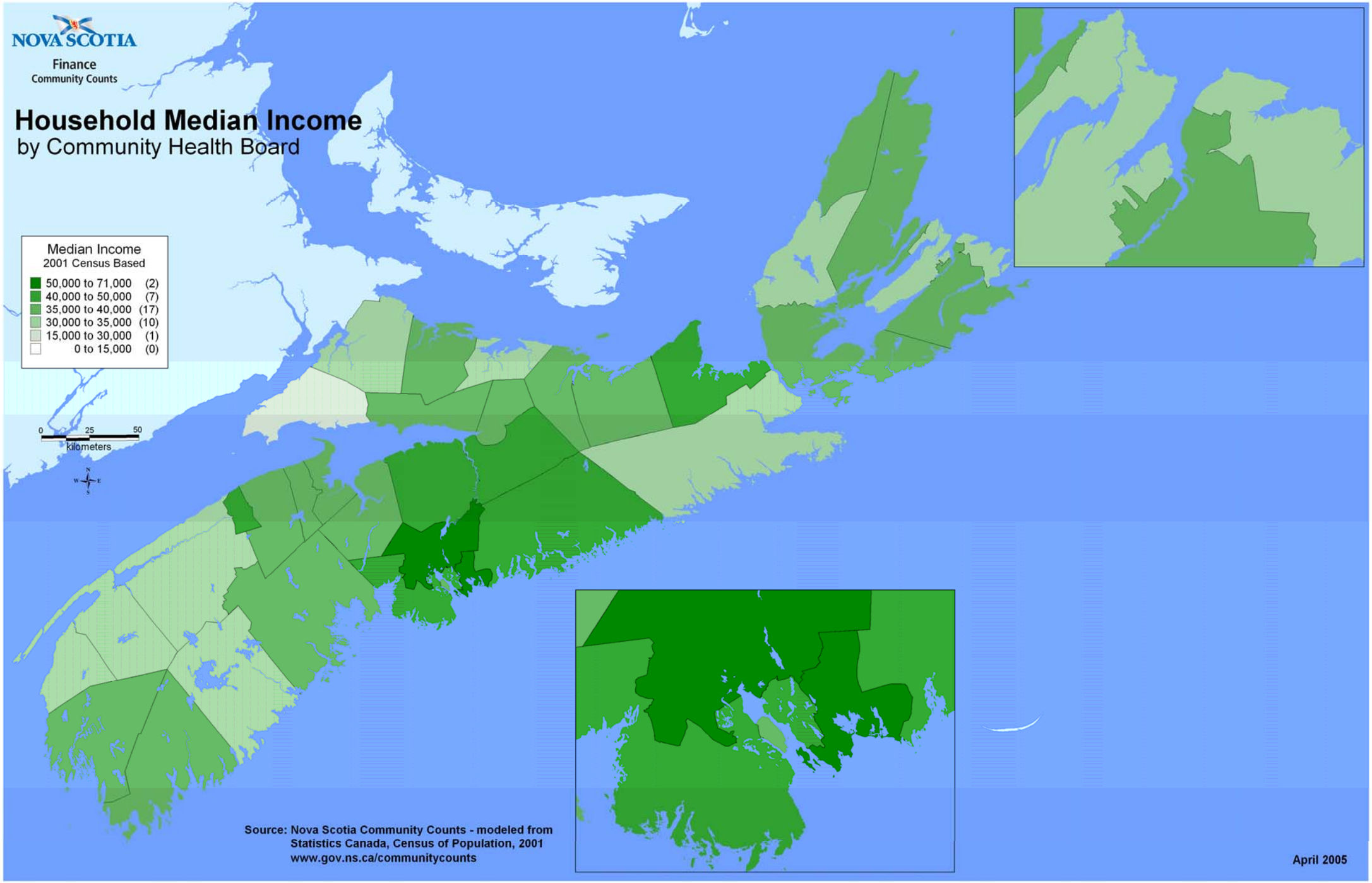
Community Health Boards Categorized by Education (% < high school graduation)

	% < High School Graduation	Education Category
Category 1 (46.3-52.7 % <high school)		
Guysborough County	52.7	1
North Inverness	48.6	1
Southampton, Parrsboro, Advocate and Regions	47.3	1
Digby and Area	47.2	1
Shelburne County	46.8	1
Victoria County	46.7	1
North Shore Area	46.5	1
Clare	46.3	1
Category 2 (41.3-43.8 % <high school)		
Northside The Lakes	43.8	2
Queens County	42.7	2
Along the Shore	42.3	2
East Cape Breton County	41.9	2
Yarmouth County	41.3	2
Category 3 (36.3-39.7 % <high school)		
Annapolis	39.7	3
Pugwash and Area	38.4	3
West Hants	38.2	3
South Colchester	38.1	3
Springhill, Oxford, Amherst and Regions	37.6	3
Lunenburg County	37.6	3
Western Kings	37.5	3
Eastern Shore - Musquodoboit	37.3	3
Central Inverness	37.0	3
Strait Richmond	36.3	3
Category 4 (31.0-35.0 % <high school)		
East Hants	35.0	4
Central and East Pictou	34.6	4
Central Cape Breton County	33.6	4
Pictou West	33.1	4
Truro & Area	32.6	4
Central Kings	31.1	4
Eastern Kings	31.0	4
Category 5 (21.2-28.8 % <high school)		
Kingston/Greenwood	28.8	5
Antigonish Town and County	27.6	5
Chebucto West	23.9	5
Southeastern	23.1	5
Dartmouth	22.8	5
Cobequid	21.2	5
Category 6 (16.9 % <high school)		
Halifax Peninsula	16.9	6
Nova Scotia	**31.7**	


NOVA SCOTIA
Finance
Community Counts
Population with Less than Grade 12 Education
by Community Health Board
(Based on population 20 years of age and over)
Percentage
2001 Census Based
45 to 67 (8)
40 to 45 (5)
35 to 40 (11)
30 to 35 (6)
20 to 30 (6)
0 to 20 (1)
0
25
50
kilometers
N
W
E
S
Source: Nova Scotia Community Counts - modeled from
Statistics Canada, Census of Population, 2001
www.gov.ns.ca/communitycounts
April 2005

Community Health Boards Categorized by Income (Median Household Income)

	Median Household Income	Income Category
Category 1 ($26,616)		
Southampton, Parrsboro, Advocate and Regions	26,616	1
Category 2 ($30,331-$34,791)		
Digby and Area	30,331	2
Guysborough County	30,441	2
East Cape Breton County	30,675	2
Northside The Lakes	31,963	2
Annapolis	32,032	2
North Shore Area	32,532	2
Queens County	32,585	2
Springhill, Oxford, Amherst and Regions	34,045	2
Central Inverness	34,660	2
Clare	34,791	2
Category 3 ($35,333-$38,979)		
Victoria County	35,333	3
Yarmouth County	35,427	3
Pugwash and Area	35,461	3
Central Cape Breton County	36,046	3
Strait Richmond	36,184	3
Central and East Pictou	36,359	3
Truro & Area	36,732	3
Along the Shore	36,928	3
Western Kings	37,148	3
Central Kings	37,198	3
Lunenburg County	37,231	3
Shelburne County	37,239	3
Eastern Kings	37,425	3
North Inverness	37,599	3
Pictou West	38,411	3
West Hants	38,505	3
Halifax Peninsula	38,979	3
Category 4 ($41,843-$44,173)		
Eastern Shore - Musquodoboit	41,843	4
South Colchester	42,165	4
Kingston/Greenwood	42,816	4
Antigonish Town and County	43,127	4
East Hants	43,448	4
Dartmouth	43,885	4
Chebucto West	44,173	4
Category 5 ($59,920-$59,941)		
Cobequid	59,920	5
Southeastern	59,941	5
Nova Scotia	**39,908**	


NOVA SCOTIA
Finance
Community Counts
Household Median Income
by Community Health Board
Median Income
2001 Census Based
50,000 to 71,000 (2)
40,000 to 50,000 (7)
35,000 to 40,000 (17)
30,000 to 35,000 (10)
15,000 to 30,000 (1)
0 to 15,000 (0)
0 25 50
kilometers
Source: Nova Scotia Community Counts - modeled from
Statistics Canada, Census of Population, 2001
www.gov.ns.ca/communitycounts
April 2005

District Health Authorities Categorized by Health (self rated health)

DHA	Self Rated Health (%Poor+Fair)	SRH Category
Category 1 (20.7%)		
Cumberland Health Authority	20.7	1
Category 2 (17.1%-18.5%)		
South West Health	18.5	2
South Shore Health	17.1	2
Category 3 (15.5%-16.3%)		
Cape Breton District Health Authority	16.3	3
Guysborough Antigonish Strait Health Authority	15.5	3
Category 4 (14.2%-14.9%)		
Colchester East Hants Health Authority	14.9	4
Annapolis Valley Health	14.7	4
Pictou County Health Authority	14.2	4
Category 5 (11.8%)		
Capital Health	11.8	5