

Public Housing Program

Program Evaluation Report

Summary



EVALUATION OF THE PUBLIC HOUSING PROGRAM

SUMMARY REPORT

Program Evaluation Division

Canada Mortgage and Housing Corporation

April 1990

I. INTRODUCTION

The federal government has supported public housing under the auspices of Sections 79, 81 and 82 of the National Housing Act which permit CMHC to cost-share with provinces and territories the costs related to the construction or acquisition of public housing projects and for their ongoing operation. Between 1949 when the first public housing program was introduced and 1985, when new construction under the program terminated, approximately 4,800 projects have been built containing some 205,000 dwelling units. This represents over 40 per cent of the portfolio of federally-assisted social housing.

Although new commitment activity under the program has ceased, the operation of this portfolio continues to consume 30 per cent of CMHC expenditures on social housing -- over \$450 million annually. Originally a program designed to deliver new social housing, program activities are now focussed on the "property management" of a large, national, housing portfolio. It remains an important source of shelter for households in need. In pure financial terms, the public housing stock is a valuable asset which would be very difficult to replace.

Since its inception in 1949, the Public Housing Program has often attracted attention on issues such as community acceptance of projects with a "negative" image. Public housing tenants have often been stigmatized for living in these projects and nearby residents have often expressed concern and sometimes outright opposition to the location of projects in their neighbourhoods. Also, tenants have expressed concern about the character of the living environment provided by public housing projects.

In 1984, CMHC completed the first major regeneration of a public housing project in Regina (Regent Court) as concerns about the Public Housing Program were broadening to other issues. Increasingly, concerns were being focussed on the physical condition of the stock and several factors were cited as contributing to its deteriorating condition, including the aging process, changing construction standards, tenant abuse and inadequate maintenance. In 1986, CMHC started the regeneration of a second public housing project in Halifax (Uniacke Square). Other provinces began to identify projects in their portfolios which would benefit from regeneration-type interventions.

As a result of recent statute revisions, Section 40, 43 and 44 of the National Housing Act are now numbered Sections 79, 81 and 82, respectively.

At the same time, there was heightened federal and provincial interest in the overall management of the public housing In particular, the physical state of the existing public housing portfolio was an area of increasing concern. Both this and administrative economies in public housing were discussed at the Housing Ministers Conference in July 1986. In 1986, federal, provincial and territorial housing ministers identified the proper maintenance, preservation and overall management of the existing social housing stock, particularly the public housing stock, as a major priority. As a result, the Federal/Provincial/Territorial Sub-Committee on the Maintenance and Preservation of the Existing Housing Stock was Due to the large size of both the public housing stock and its associated annual budgetary expenditures, the Public Housing Program has been identified as a particularly important area of concern. Enhanced portfolio management of the social housing stock is also emphasized in recent CMHC Strategic Plans.

In the absence of information on the overall state of the public housing stock, it has not been possible to date to consider alternative strategies for dealing with an aging public housing stock in a systematic fashion. To this end, an evaluation of the Public Housing Program was authorized by CMHC Management Committee in August, 1987.

The evaluation provides an assessment of the extent to which the program is currently achieving its objectives (as set by government) and at what costs. Four main issue areas were examined in the evaluation: the physical condition of the stock, management performance, operating expenses, and the quality of life experienced by the program's clients. The evaluation sets the stage for a policy and consultation process on options for the future management of the public housing stock.

The evaluation draws on a number of data sources compiled specifically for the evaluation, including: a physical condition survey, questionnaire surveys of clients and project managers, data bases containing detailed information on project characteristics and operating expenses, provincial and territorial Guidelines and Procedures manuals, a follow-up telephone survey of provincial and territorial public housing administrators and a series of eight case studies which explore the need for conversions, redesign or redevelopment and clarify the issues associated with these major upgrading activities.

II. PROGRAM BACKGROUND, CHARACTERISTICS OF THE STOCK AND PROGRAM CLIENTS

A. The History of Public Housing in Canada

The Public Housing Program was established by amendments to the National Housing Act which were adopted in 1949. Under the Section 79 Federal/Provincial Public Housing Program, CMHC and the government of a province or territory entered into agreements for the construction or acquisition of public housing projects. Capital costs were shared 75/25 by the federal and provincial or territorial governments respectively. The provinces and territories, in turn, could request that municipalities participate in their 25 per cent share. Amortization of the costs was spread over a period of up to 50 years with interest rates set by the partnership. Operating losses on the Section 79 projects are cost-shared on the same basis as the original project costs.

Rents charged to the occupants are based on the federal or a provincial/territorial rent-geared-to-income scale and generally equal 25 per cent or less of a household's income (except in British Columbia and New Brunswick where the upper range has been revised upward to 30 per cent). Federal subsidies are calculated according to the scale producing the higher revenues.

While CMHC accepted responsibility for approving, planning and designing public housing projects, the management and administration of the projects and the program's clients were in most cases taken on by the provinces. Responsibilities for day-to-day management of public housing projects were often delegated to local housing authorities, or their equivalent, established by provinces and territories.

Amendments to the NHA adopted in 1964 introduced two additional programs -- the Section 81/82 Regular Public Housing Program and the Section 82 Provincially-Financed Public Housing Program. Under Section 81 of the NHA, CMHC made long term loans to provinces, territories, municipalities, or public housing agencies for the construction or acquisition of a public housing project. The loan could not exceed 90 per cent of the approved project capital costs and had an amortization period of up to 50 years. Ownership of the projects was retained by the provinces, territories, municipalities or public housing agencies.

Section 82 authorized CMHC to absorb 50 per cent of operating losses associated with public housing projects for a period not exceeding 50 years. Rents charged to the occupants are based on the same federal or provincial/territorial rent-to-income scales as employed in the Section 79 Federal/Provincial

Program. Under the Section 82 Provincially-Financed Program, the projects were financed entirely by the provinces and territories (i.e. there were no Section 81 loans involved). Provincial interest and program take-up increased with the introduction of the new programs. The dramatic increase in the use of these programs under the NHA provided a strong impetus to the provinces to establish housing agencies of their own.

In 1978 the Section 81/82 Regular and Section 82 Provincially-Financed Programs were terminated, except in the Northwest Territories where activity continued until the end of 1983. At the same time, the use of Section 79 was restricted to those provinces and territories that had used it over the past decade, (i.e. Newfoundland, New Brunswick, Prince Edward Island, Nova Scotia, Saskatchewan and the Northwest Territories). With the introduction of the new social housing package in 1986, new commitment activity ceased under Section 79. Section 95 now provides the legislative authority for building social housing projects which are wholly targeted to low income households.

B. Characteristics of the Public Housing Portfolio

Although the Section 79 Public Housing Program was initiated in 1949, only 4.3 per cent of all units were developed prior to 1964 when the Section 81/82 programs were introduced. In fact, over two-thirds of all public housing units were developed during the 1970's. Fully four-fifths of the public housing portfolio has been financed under the Section 81/82 Program. Projects financed under Section 79 account for one-fifth of the portfolio.

By far, the largest proportion of the public housing stock is located in Ontario (Table 1). With 96,582 units, Ontario's public housing portfolio accounts for almost half of all units. Quebec has the next largest stock of public housing. Quebec's 35,632 units constitute a further 17.3 per cent of the total portfolio. The remaining provinces and territories account for just over one-third of all units.

Overall, the public housing portfolio has a fairly young age profile. Fully 87.2 per cent of all public housing units are less than 20 years old; just under one-fifth are less than 10 years old. The oldest public housing stock (developed prior to 1970) is most prevalent in Ontario, Newfoundland, New Brunswick and British Columbia. The youngest stock is found in the Northwest Territories, Prince Edward Island, Alberta and Saskatchewan.

A large variety of project types have been constructed or acquired under the Public Housing Program (Table 2). Approximately one-quarter of all public housing units are

TABLE 1
PUBLIC HOUSING PORTFOLIO BY PROVINCE AND TERRITORY

	PRO	JECTS	UNITS		
PROVINCE/TERRITORY	NUMBER	PER CENT	NUMBER	PER CENT	
Newfoundland	176	3.7	4,710	2.3	
Prince Edward Island	90	1.9	951	0.5	
Nova Scotia	477	9.9	10,288	5.0	
New Brunswick	157	3.3	3,892	1.9	
Quebec	630	13.1	35,632	17.3	
Ontario	1,329	27.6	96,582	47.0	
Manitoba	336	7.0	12,808	6.2	
Saskatchewan	577	12.0	12,353	6.0	
Alberta	531	11.1	16,899	8.2	
British Columbia	100	2.1	7,978	3.9	
Yukon	22	0.5	261	0.1	
Northwest Territories	376	7.8	3,338	1.6	
CANADA	4,801	100.0	205,692	100.0	

SOURCE: Project Characteristics Data Base, Program Evaluation Division, CMHC, 1988.

contained in projects solely made up of detached, semi-detached or row housing. Low-rise apartment projects (buildings with less than four storeys) contain another quarter of all units. Projects consisting of high-rise apartment buildings (with four or more storeys) constitute only 11.4 per cent of all projects but contain 38.8 per cent of all units.

While the majority of public housing projects are relatively small in size, a substantial proportion of all units are contained in large projects. Fully 77.2 per cent of all projects contain fewer than 50 units. Projects with 100 units or more constitute only 11.3 per cent of all projects, but account for roughly one-half of all units in the portfolio.

Roughly equal numbers of families and senior citizen households have been served under the Public Housing Program. While family projects dominated delivery prior to 1970, the majority of units delivered since 1970 have been developed for seniors. The mix of family and seniors projects varies considerably among provinces and territories. The Northwest Territories, Newfoundland and the Yukon have high proportions of their portfolios devoted to family projects (93.6, 91.3 and 74.7 per cent of total units, respectively). In contrast, public housing projects in Saskatchewan, Prince Edward Island, and Nova Scotia house principally seniors clients (73.3, 70.6 and 65.1 per cent of total units, respectively). The remaining provinces have more balanced portfolios.

TABLE 2
CHARACTERISTICS OF THE PUBLIC HOUSING PORTFOLIO

PROJECT	PRO	JECTS	UNITS		
CHARACTERISTICS	NUMBER	PER CENT	NUMBER	PER CENT	
PROGRAM					
Section 79	1,444	30.1	41,254	20.1	
Section 81/82	3,357	69.9	164,438	79.9	
AGE OF STOCK IN 1988					
0 - 4 years	328	6.8	4,200	2.0	
5 - 9 years	1,204	25.1	34,692	16.9	
10 - 14 years	1,769	36.9	67,717	32.9	
15 - 19 years	1,149	23.9	72,841	35.4	
20 - 24 years	265		17,409	8.5	
25 - 29 years	32		3,696	1.8	
30 years and over	54	1.1	5,137	2.5	
PROJECT TYPE					
Detached, Semi & Row	2,311	50.9	45,969	23.8	
Low rise	1,537		45,980	23.8	
High rise	517		75,089	38.8	
Mixed (no high rise)		2.5	10,369	5.3	
Mixed (with high rise)	64	1.4	16,097	8.3	
PROJECT SIZE					
Less than 10 units	955		5,192		
10 - 49 units	2,752	57.3	57,829	28.1	
50 - 99 units	552	11.5	37,381		
100 - 199 units	371		48,860		
200 units or more	171	3.6	56,430	27.4	
CLIENT TYPE					
Family	2,320	48.3	89,615	43.6	
Senior	2,271	47.3	101,263	49.2	
Family & Senior	192	4.0	14,247	6.9	
Other	18	0.4	567	0.3	
SETTLEMENT SIZE	_				
Rural	1,418	29.5	18,068	8.8	
2,500 - 9,999	1,080	22.5	22,165	10.8	
10,000 - 29,999	631	13.1	20,603	10.0	
30,000 - 99,999	584	12.2	31,358	15.2	
100,000 - 499,999	510	10.7	58,908	28.7	
500,000 and over	578	12.0	54,590	26.5	
ALL	4,801	100.0	205,692	100.0	

SOURCE: Project Characteristics Data Base, Program Evaluation Division, CMHC 1988.

C. Profile of Public Housing Clients

Approximately 430,000 people reside in public housing projects nationwide. The majority of public housing residents are children and senior citizens. Fully one-quarter of public housing residents are children under the age of 15 years. A similar proportion of the population is aged 65 years or older. These two age groups account for one-half of all residents in public housing nationwide, as compared to one-third of the general population. Almost two-thirds of public housing residents are female, a reflection of the preponderance of female headship among single parent families as well as the greater longevity of women.

Differing targeting within the population in need is reflected in variations in the age profile of the client population across the country. For example, Manitoba, Alberta and Newfoundland have the highest proportions of clients aged under 15 years. In contrast, Saskatchewan, Prince Edward Island, Nova Scotia and Quebec have the highest proportions of clients aged 65 years or older. An emphasis on serving the elderly is most prominently displayed in Saskatchewan, where fully one-quarter of the client population is aged 75 years or older.

The characteristics of households residing in public housing are displayed in Table 3. Single person households clearly predominate among public housing residents, accounting for approximately one-half of all client households and 85.6 per cent of residents of public housing projects for senior citizens. Single parent households are the next largest group (24.1 per cent) and are almost twice as numerous as family households where both parents are present. Single parent families constitute one-half of all households residing in family public housing projects.

The large family households which were one of the principal client groups in the early years of the Public Housing Program are considerably less common today. In fact, just over 80 per cent of all client households consist of three or fewer persons while less than 10 per cent are composed of five or more persons. Approximately 15.5 per cent of all client households reported that one or more members were disabled or infirm.

Just under one-half of survey respondents reported that they had not attended high school (Table 4). Approximately 5 per cent indicated that they had not received any formal education.

TABLE 3
CHARACTERISTICS OF HOUSEHOLDS RESIDING IN PUBLIC HOUSING

	PER CENT	r of public	HOUSING C	LIENTS	PER CENT OF ALL (1)
HOUSEHOLD CHARACTERISTICS				ALL PROJECTS	RENTER HOUSEHOLDS
HOUSEHOLD TYPE		:			
One person living alone	14.6	85.6	37.0	52.0	40.4
One adult with children	50.1	0.3	36.0	24.1	10.2
Couple with children	28.5	0.7	12.8	13.3	20.5
Couple without children	3.6	12.9	10.8	8.7	17.8
Other	3.2	0.5	3.5	1.9	11.1
HOUSEHOLD SIZE					
One person	13.7	85.4	39.1	51.3	40.4
Two persons	24.6	13.7	17.6	18.5	29.8
Three persons	23.6	0.3	20.1	11.8	14.2
Four persons	18.0	0.6	18.6	9.4	9.9
Five persons	11.9	0.0	3.1	5.4	4.0
Six or more persons	8.2	0.0	1.5	3.6	1.7
DISABLED/INFIRM PERSON	IN HOUSEHO	OLD			
Yes	9.0	21.7	11.7	15.5	N/A
Ио	91.0	78.3	88.3	84.5	N/A

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division,

CMHC, 1989; 1988 HIFE Microdata, Statistics Canada.

NOTE: (1) Excluding renters in the Yukon and Northwest Territories.

The "working poor" constitute only a small percentage of client households. One-fifth of all respondents to the client survey and one-third of family clients reported being employed, compared with two-thirds of the heads of renter households in general. Three-quarters of the respondents to the public housing tenant survey are not in the labour force, compared with just under 30 per cent of heads of renter households in general.

Over one-third (35.8 per cent) of family clients have employment of some kind (full-time, part-time or self-employed); one-quarter are employed full-time. Just under one-third (29.8 per cent) are retired or unable to work due to disability. Approximately one-quarter of survey respondents in family projects reported being either unemployed and looking for work (12.6 per cent) or unemployed but not looking for work (12.4 per cent). The vast majority (83.8 per cent) of respondents in seniors projects are retired and a further 8.5 per cent reported being unable to work due to disability.

TABLE 4
SOCIO-ECONOMIC CHARACTERISTICS OF PUBLIC HOUSING RESIDENTS

	PER CENT	OF PUBLIC	HOUSING C	LIENTS	PER CENT OF ALL (1)	
CHARACTERISTICS	FAMILY PROJECTS	SENIORS PROJECTS	FAM/SEN PROJECTS	ALL PROJECTS	RENTER HOUSEHOLDS	
EDUCATIONAL ACHIEVEMENT						
No formal schooling	4.8	5.6	7.3	5.3	N/A	
Grade school	29.1	50.9	36.7	40.2	N/A	
High school	44.7	33.1	46.8	39.3	N/A	
Community college/CÉGEP	15.5	6.1	5.8	10.2	N/A	
University	5.3	2.8	3.3	4.0	N/A	
Other	0.6	1.5	0.1	1.0	N/A	
EMPLOYMENT STATUS						
Full-time employee	24.9	1.6	9.8	12.5 7		
Part-time employee	8.7	1.8	5.6		8.7 66.9	
Self-employed	2.2	0.0	0.5	1.0		
Unemployed & looking						
for work	12.6	1.0	16.6	7.2	4.6	
Not employed & not						
looking for work	12.4	2.9	13.8	7.9 7		
Retired	11.4	83.8	35.2	48.2		
Unable to work				- 7	4.1 28.5	
due to disability	18.4	8.5	14.6	13.3		
Other	9.6	0.4	3 .9	4.7		

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division,

CMHC, 1989; 1988 HIFE Microdata, Statistics Canada.

NOTE: (1) Excluding renters in the Yukon and Northwest Territories.

Just under one-third of survey respondents indicated that provincial or municipal social assistance was their major source of income (Table 5). A similar proportion rely principally on Old Age Security (OAS) and the Guaranteed Income Supplement (GIS). Employment income was the major source of income for less than one-fifth of survey respondents.

As would be expected, given the differences in employment status, income sources of public housing residents differ considerably from the general renter population. In 1988, 67.7 per cent of renter households reported that employment income was their major source of income, while 26.6 per cent cited government transfer payments and 2.3 per cent reported retirement pensions, superannuation and annuities.

TABLE 5 MAJOR SOURCE OF INCOME OF PUBLIC HOUSING RESIDENTS

MAJOR SOURCE OF INCOME (PER CENT OF CLIENT HOUSEHOLDS)

CHARACTERISTICS	MPLOYMENT INCOME	SOCIAL ASSISTANCE	OAS/	PENSIONS	OTHER	
CLIENT TYPE						
Family	32.1	48.2	4.8	4.8	10.1	
Senior	2.5	9.8	59.4	20.2	8.1	
Family & Senior	16.4	39.0	13.1	23.0	8.5	
HOUSEHOLD TYPE						
One person living alone	2.7	16.1	57.8	16.8	6.6	
One adult with children		62.7	1.1	3.5	8.5	
Couple with children	56.9	28.3	0.2	2.1	12.5	
Couple without children	13.7	5.5	21.5	43.5	15.8	
Other	29.2	29.6	15.9	8.9	16.4	
PROVINCE/TERRITORY						
Newfoundland	30.8	33.3	7.0	6.0	22.9	
Prince Edward Island	11.0	10.0	68.8		7.4	
Nova Scotia	12.9	20.3	51.1	7.9	7.8	
New Brunswick	8.9	50.5	29.2	7.0	4.4	
Quebec	6.9	38.7	4.2	46.0	4.2	
- Ontario	18.1	32.2	35.2	4.6	9.9	
Manitoba	15.7	34.2	33.9	6.6	9.6	
Saskatchewan	20.8	10.1	50.9	9.1	9.1	
Alberta	23.9	17.7	37.9	6.7	13.8	
British Columbia	23.2	28.3	33.9	5.4	9.2	
Yukon	· •		puo:	_		
Northwest Territories	-	528		· -	ena ,	
ALL	17.8	30.4	29.8	12.9	9.1	

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division,

CMHC, 1989.

NOTE: Insufficient cases for analysis in the Yukon and Northwest

Territories.

Just under one-half of clients residing in family projects reported that provincial or municipal social assistance constitutes their major source of income. One-third of family clients report that employment was their major source of income. The majority (65.3 per cent) of clients in seniors projects rely on Old Age Security benefits or the Guaranteed Income Supplement as their major source of income.

Survey respondents reported annual household incomes which averaged \$10,632. Annual household incomes are highly clustered within a narrow range (Table 6). Over one-half of households reported annual incomes of between \$5,000 and \$10,000. Over 80 per cent reported household incomes of between \$5,000 and \$15,000.

TABLE 6
ANNUAL INCOMES OF HOUSEHOLDS RESIDING IN PUBLIC HOUSING (1988)

	PER CEI	PER CENT OF PUBLIC HOUSING CLIENTS			
HOUSEHOLD INCOME GROUPS	FAMILY PROJECTS	SENIORS PROJECTS	FAM/SEN PROJECTS	ALL PROJECTS	OF ALL (1) RENTER HOUSEHOLDS
Under \$5,000	4.4	5.1	5.4	4.8	3.6
\$5,000 - \$9,999	50.6	60.1	57.4	55.9	14.6
\$10,000 - \$14,999	22.2	27.2	27.4	25.1	14.2
\$15,000 - \$19,999	12.4	6.1	6.6	8.8	11.8
\$20,000 or more	10.3	1.5	3.2	5.4	55.9
ALL	100.0	100.0	100.0	100.0	100.0
AVERAGE INCOME	\$11,752	\$9,799	\$9,796	\$10,632	\$26,892

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division,

CMHC, 1989; 1988 HIFE Microdata, Statistics Canada.

NOTE: (1) Excluding renters in the Yukon and Northwest Territories.

Only small provincial variations in average household incomes are apparent. Average incomes of households in family projects (\$11,752) are only marginally higher than those residing in seniors projects (\$9,799). Single person households and single parent families reported the lowest average incomes (\$9,088 and \$10,031, respectively). Average household incomes ranged from a low of \$8,069 (where municipal social assistance was reported to be the major source of income) to \$17,250 (for households who reported that employment was the major source of income).

III. THE PHYSICAL CONDITION OF THE PUBLIC HOUSING STOCK

For the first time, the Physical Condition Survey provides a detailed, accurate and comprehensive assessment of the condition of Canada's public housing stock. The data base assembled from the Physical Condition Survey provides the basis for an accurate assessment of the degree to which the Public Housing Programs continue to provide structurally sound dwellings which are free of health and safety hazards and also for the estimation of the total cost of required repairs, replacements, additions and upgrades.

The Physical Condition Survey was completed using new inspection procedures developed by Program Evaluation Division in consultation with Research Division, Professional Standards Division and field inspection staff. The diversity of the stock demanded the development of a sophisticated means of assessing physical condition. In total, seven different inspection forms were designed to collect information concerning the condition of sites, buildings, units and parking structures. The inspections were completed by CMHC inspections staff who visited a total of 1,001 projects, 1,153 buildings and 2,483 units during 1987-88.

A. Condition Ratings

The public housing stock is in good condition overall. Whether using units, buildings, sites or projects as the unit of analysis, at least 94 per cent of the total portfolio meets or exceeds NHA minimum standards (Table 7). Although the stock is generally in good condition, an estimated 169 projects (3.5 per cent), containing close to 13,000 public housing units (6.3 per cent), fail to meet minimum property standards (Table 8). In addition, more than half of all projects only minimally meet minimum property standards. These projects are at risk of falling below the standards.

The physical condition of the portfolio varies across provinces and territories (Table 9). This is not surprising, as the characteristics of individual provincial and territorial public housing portfolios also differ considerably in terms of the clients served and the age of the stock. In general terms, the condition of the public housing stock is the worst in Nova Scotia, New Brunswick and Newfoundland. Nova Scotia and New Brunswick both have around 10 per cent of their public housing projects failing NHA standards. It

National Housing Act: Minimum Property Standards for Existing Residential Buildings, Canada Mortgage and Housing Corporation, 1986.

TABLE 7
OVERALL CONDITION OF BUILDINGS, UNITS AND SITES
IN PUBLIC HOUSING PROJECTS

CONDITION OF BUILDINGS (%)	CONDITION OF UNITS (%)	CONDITION OF SITES (%)	
5.9	4.0	4.2	
61.2	47.4	58.1	
32.9	48.6	37.7	
100.0	100.0	100.0	
	OF BUILDINGS (%) 5.9 61.2 32.9	OF BUILDINGS (%) 5.9 4.0 61.2 47.4 32.9 48.6	

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

TABLE 8
OVERALL CONDITION OF PROJECTS IN THE PUBLIC HOUSING PORTFOLIO

NHA STANDARDS	# OF PROJECTS	%	# OF UNITS	%
Fails	169	3.5	12,994	6.3
Meets Exceeds	2,525 2,087	52.9 43.6	106,620 86,537	51.7 42.0
TOTAL	4,781	100.0	206,151	100.0

SOURCE: Physical Condition Survey, Program Evaluation Division, 1988.

should be noted that these failing projects include 30.9 per cent and 23.2 per cent of all public housing units in Nova Scotia and New Brunswick. In Newfoundland, although only 5 per cent of projects fail the NHA standards, these projects include more than 13 per cent of all public housing units in that province. At the other end of the spectrum, the condition of the stock is best in Manitoba and Saskatchewan measured either as the percentage of projects failing standards or as the percentage of public housing units located in projects failing the NHA standards.

Another important measure of the condition of the public housing stock is the percentage of the stock which just meet the minimum NHA standards and may be in danger of falling below these standards if proper maintenance is not adhered to or if necessary repair and replacements are not given proper attention. The public housing stocks of the Yukon, Alberta, Manitoba, Quebec, British Columbia and New Brunswick had the highest incidence of projects or units in projects just meeting the NHA standards at the time of the survey.

TABLE 9
PROJECT CONDITION BY PROVINCE AND TERRITORY
(PERCENTAGE DISTRIBUTION OF UNITS
BY PROJECT CONDITION RATINGS)

The state of the s	NHA STANDARDS						
PROVINCE/ TERRITORY	FAILS %	MEETS %	EXCEEDS %	TOTAL %			
Newfoundland	13.5	48.8	37.7	100.0			
P.E.I.	4.5	58.4	37.1	100.0			
Nova Scotia	30.9	39.9	29.2	100.0			
New Brunswick	23.2	62.3	14.5	100.0			
Quebec	4.5	75.7	19.8	100.0			
Ontario	5.0	37.2	57.8	100.0			
Manitoba	2.2	76.3	21.5	100.0			
Saskatchewan	PO D	27.7	72.3	100.0			
Alberta	4.4	80.3	15.3	100.0			
British Columbia	7.0	62.5	30.5	100.0			
Yukon	2.7	86.1	11.2	100.0			
N.W.T.	3.6	55.6	40.8	100.0			
CANADA	6.3	51.7	42.0	100.0			

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

B. Costs for Repairs and Replacements

While condition ratings provide a good indication of the overall state of the public housing stock, cost estimates for repair and replacement provide a measure of the nature and magnitude of the corrective interventions needed. Repair and replacement cost estimates also allow the establishment of the current financial exposure of the provincial and federal governments to preserve the existing public housing stock.

The total estimated cost of undertaking repair and replacement actions is just under \$350 million (Table 10). This represents an average cost of \$1,693 per unit in the public housing stock. Over half of the total cost is required to complete repair and replacement actions on buildings (as opposed to the interior of the dwelling units or the sites on which the buildings are located). Actions on buildings include all repairs and replacements to the building exterior, foundations, service rooms, parking garages and common areas (e.g. entrance halls, corridors, meeting rooms, staircases, etc.)

Repairs and replacements to the interior of the dwelling units account for 36.6 per cent of total costs while repairs and replacements to project sites (e.g. paving, landscaping, walls

and fences) account for the remaining 7.9 per cent of total costs. The inspectors indicated that \$278 million or 79.4 per cent of all repair and replacement costs are required within 3 years.

TABLE 10
TOTAL AND PER UNIT REPAIR COSTS FOR UNITS,
BUILDINGS AND SITES OF PUBLIC HOUSING PROJECTS

PROJECT COMPONENTS	TOTAL COST (\$MILLIONS)	PER CENT OF TOTAL	COST/UNIT
Units	127.9	36.6	620
Buildings	193.9	55.5	939
Sites	27.5	7.9	133
ALL	349.3	100.0	1,693

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

While they account for only 3.5 per cent of all projects, public housing projects which fail to meet NHA minimum property standards account for close to a quarter of all repair and replacement costs. In absolute terms, projects which minimally meet the NHA standards require the bulk of total repair and replacement expenditures with 58.6 per cent of total costs. The remaining 19.6 per cent of repair and replacement costs is accounted for by projects which exceed NHA standards.

The majority of projects do not require extensive repairs. Roughly one-half of all projects require less than \$10,000 in repairs and replacements (Table 11). Together, these projects require less than 2 per cent of total repair and replacement needs. At the other extreme, a minority of projects require the majority of repair and replacement costs. While only 2.8 per cent of all projects (133) have repair and replacement costs exceeding \$500,000, these projects account for over 50 per cent of all repair and replacement costs (\$180 million).

Measured in terms of repair and replacement costs per unit, almost one-half of public housing projects require less than \$500 per unit (Table 12) and account for only 3.6 per cent of total repair and replacement costs. At the other extreme, a small percentage of projects (6.9 per cent), require \$5,000 or more per unit and account for 44 per cent of total repair and replacement costs.

TABLE 11
TOTAL PROJECT REPAIR AND REPLACEMENT COSTS PER PROJECT

R&R COSTS PER PROJECT	TOTAL COSTS (\$MILLIONS)	% OF TOTAL COSTS	% OF PROJECTS	% OF UNITS
Less than 2,500	0.61	0.2	29.7	19.3
2,500 - 4,999	1.49	0.4	8.1	4.4
5,000 - 9,999	3.41	1.0	9.8	4.5
10,000 - 24,999	15.62	4.5	19.8	13.7
25,000 - 49,999	20.18	5.8	11.3	11.7
50,000 - 99,999	24.13	6.9	7.3	7.9
100,000 - 249,999	60.90	17.4	8.6	14.5
250,000 - 499,999	42.85	12.3	2.6	8.6
500,000 or More	180.09	51.5	2.8	15.4
TOTAL	349.28	100.0	100.0	100.0

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

TABLE 12
TOTAL PROJECT REPAIR AND REPLACEMENT COSTS PER UNIT

R&R COSTS PER UNIT	TOTAL COSTS (\$MILLIONS)	% OF TOTAL COSTS	% OF PROJECTS	% OF UNITS
Less than 500	12.67	3.6	47.0	45.3
500 - 999	18.37	5.3	14.5	12.2
1,000 - 2499	82.87	23.7	22.8	24.0
2,500 - 4999	81.65	23.4	8.8	11.0
5,000 or more	153.72	44.0	6.9	7.5
TOTAL	349.28	100.0	100.0	100.0

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

Five construction systems require in excess of \$25 million in repair and replacement actions each. These are, in order of descending magnitude: surface finishes (\$62.9 million), exterior walls (\$38.7 million), roofs and ancillary features (\$38.7 million), parking garages (\$26.9 million) and windows (\$26.1 million). Together, these five construction systems account for 55.3 per cent of all repair and replacement costs.

Four provinces and territories have repair and replacement costs per unit which are significantly higher than the national average of \$1,693 per unit (Table 13). These are Newfoundland with \$6,325 per unit, the Yukon with \$5,180 per

unit, British Columbia with \$3,158 per unit and New Brunswick with \$2,339 per unit. Three provinces have repair and replacement costs per unit which are significantly lower than the national average. These provinces are Manitoba with \$274 per unit, Alberta with \$741 per unit and Saskatchewan with \$891 per unit. Prince Edward Island and Northwest Territories would also appear to have repair and replacement costs per unit which fall below the national average. Quebec, Ontario and Nova Scotia all have repair and replacement costs per unit which are not significantly different from the national average.

TABLE 13
TOTAL REPAIR AND REPLACEMENT COSTS BY PROVINCE AND TERRITORY

PROVINCE	TOTAL COSTS (\$MILLIONS)	% OF TOTAL COSTS	AVERAGE COSTS PER PROJECT	AVERAGE COSTS PER UNIT
Newfoundland	29.6	8.5	168,442	6,325
P.E.I.	0.9	0.3	10,274	942
Nova Scotia	19.7	5.6	41,507	1,903
New Brunswick	9.8	2.8	62,154	2,339
Quebec	61.6	17.6	97,573	1,731
Ontario	167.9	48.2	126,545	1,762
Manitoba	3.6	1.0	10,785	274
Saskatchewan	11.6	3.3	20,084	891
Alberta	12.7	3.6	24,038	741
B.C.	26.4	7.5	263,726	3,158
Yukon	1.3	0.4	63,885	5,180
N.W.T	4.2	1.2	11,149	1,287
CANADA	349.3	100.0	72,872	1,693

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

In absolute terms, Quebec and Ontario, due to the size of their portfolios, have the highest estimated costs for repair and replacements with \$61.6 million and \$167.9 million respectively. These costs account respectively for 17.6 per cent and 48.2 per cent of the total national costs, which for both provinces is representative of their respective share of units in the national public housing stock. Newfoundland and British Columbia, two of the provinces with higher than average repair and replacement costs per unit, together account for another 16 per cent of total national costs.

To a large extent, provincial and territorial variations in physical condition reflect differences in the composition of the public housing stock among these jurisdictions (i.e. age of the stock, client groups served). The impact of these and other factors on the condition of the portfolio are examined below.

C. Factors Influencing The Condition Of The Portfolio

Repair and replacement costs vary considerably across different components of the public housing portfolio (Table 14). Repair and replacement costs increase with the age of the stock. Average repair and replacement costs per unit decrease from under \$1,000 for projects completed after 1974, to just under \$2,000 for projects completed between 1970 and 1974, and finally to over \$3,000 for projects completed before 1970.

Projects serving family clients require per unit repair and replacement expenditures of more than one and a half times the national average (per unit) and close to three times that for projects serving seniors clients only. Although they represent just under half of all units, public housing projects serving family clients or a mix of family and seniors clients require close to 75 per cent of all repair and replacement expenditures.

Overall, projects composed of either low-rise or high-rise apartment buildings have the lowest repair and replacement costs per unit at just over \$1,200. Projects with a mix of building types, including or excluding high rises, have the highest repair and replacement costs per unit with close to \$2,500 and \$2,900 per unit respectively. This is a reflection of the fact that projects with a mix of building types are older than average and almost without exception serve a family clientele.

Per unit repair costs do not vary significantly according to either project size or municipality size categories. The only real exceptions to this observation are projects with 200 or more units (which require greater than average repair and replacement expenditures) and rural projects (which have considerably lower than average costs). This can be accounted for by the fact that large projects are older, on average, than other size categories while rural areas have the youngest stock and cater to a higher percentage of seniors clients than the national average.

A series of multivariate statistical analyses were undertaken to isolate the key factors associated with project condition. Among all of the variables examined, the age of the stock and the nature of the client served (families versus senior citizens) exert the greatest influence over project condition.

TABLE 14
TOTAL REPAIR AND REPLACEMENT COSTS BY PROJECT CHARACTERISTICS

PROJECT CHARACTERISTICS (S	TOTAL COSTS MILLIONS)	% OF TOTAL COSTS	AVERAGE COSTS PER PROJECT	AVERAGE COSTS PER UNIT
Program				
Section 79	85.0	24.3	59,074	2,050
Section 81/82	264.3	75.7	78,789	1,603
Project Age				
Pre - 1964	29.0	8.3	317,619	3,233
1964 - 1969	72.4	20.7	199,647	3,646
1970 - 1974	155.0	44.4	116,559	1,900
1975 - 1979	69.0	19.8	38,739	976
1980 - 1987	23.8	6.8	19,412	946
Client Type				
Family	228.8	65.5	99,820	2,676
Senior	95.9	27.5	42,044	916
Family & Senior	24.2	6.9	121,917	1,544
Other	0.4	0.1	KNE	
Building Type				
Detached, Semi & Row	119.8	34.3	46,005	2,198
Low rise	60.3	17.3	40,650	1,260
High rise	91.7	26.3	177,278	1,226
Mixed (no high rise)	37.5	10.7	305,489	2,864
Mixed (with high rise)	39.9	11.4	622,995	2,484
Project Size				
Less than 10 units	8.4	2.4	8,179	1,416
10-49 units	85.7	24.5	32,098	1,470
50-99 units	46.9	13.4	86,317	1,244
100-199 units	84.5	24.2	232,911	1,651
200 units or more	123.6	35.5	740,371	2,326
Municipality Size				
Rural	14.6	4.2	10,963	920
2,500 to 9,999	31.3	9.0	32,878	1,632
10,000 to 29,999	40.1	11.5	45,252	1,553
30,000 to 99,999	62.1	17.8	69,056	1,795
100,000 to 499,999	103.2	29.4	207,427	1,781
500,000 or more	98.0	28.1	179,802	1,850
ALL	349.3	100.0	72,872	1,693

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

Older projects and those housing families were generally in worse condition than newer projects and those housing senior citizens. A strong relationship was also observed between project condition and the level of maintenance expenditures in the eight years preceding the inspections, with projects in poorer condition having higher average maintenance costs.

D. Additions and Upgrades

The Physical Condition Survey also collected information on the need for additions and upgrades to the public housing stock in the areas of fire safety, lighting, ventilation, energy efficiency and durability/maintenance. These additions and upgrades are either necessary to meet current code requirements or would result in major cost savings in the opinion of the CMHC inspectors. In total, \$133.4 million are needed to complete these additions and upgrades (Table 15). Additions and upgrades for energy efficiency make up the largest category (\$54.8 million), followed by fire protection equipment (\$35.0 million). Additions and upgrades for ventilation, lighting and durability/maintenance items are considerably smaller in magnitude, accounting for 19.5, 8.7 and 4.5 per cent of total costs, respectively.

TABLE 15
COST OF ADDITIONS AND UPGRADES TO THE PUBLIC HOUSING STOCK

CATEGORY OF ADDITION OR UPGRADE	TOTAL COSTS (\$MILLIONS)	% OF TOTAL COSTS
Energy efficiency	54.8	41.1
Fire safety	35.0	26.3
Ventilation	26.0	19.5
Lighting	11.6	8.7
Durability/ Maintenance	6.0	4.5
TOTAL	133.4	100.0

SOURCE: Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

E. Need for Modification of the Public Housing Stock: Conversion, Redesign and Redevelopment

Regeneration is the term usually used to describe the major modification of a public housing project. Regeneration is an all encompassing term which has come to be associated with a wide range of interventions which can address the upgrading of the public housing stock. The evaluation focused on three

sub-components of the broader definition which are easier to define, conceptualize and measure: conversion, redesign and redevelopment.

Conversion is an upgrading activity which results in a net change in the number of units in a building and may involve a change in unit layouts. Conversion is generally required where a mismatch exists between the size of units available, and the household size and composition of potential clients. Redesign and redevelopment, on the other hand, refer to a range of actions which go beyond the repair and replacement of existing construction systems or even the addition or upgrade of particular systems. Redesign and redevelopment may be warranted for projects where the original design was poor or has become obsolete, where sites could be redeveloped to a higher and better use, or where the physical condition is so poor and repair/replacement costs are so high that an overall strategy for salvaging the project may be warranted. and redevelopment may also be a useful solution where changes in communities, either urban or rural, challenge the viability of the project.

The evaluation drew on two data sources in the examination of conversion, redesign and redevelopment. The principal data source was a series of eight case studies of public housing projects identified in the survey of project managers as having a conversion, redesign and/or redevelopment need. In addition to a need for conversion, redesign and redevelopment, other criteria were used to select projects for the case studies, including a failing condition rating provided by project managers and/or inspectors, high repair and replace costs and high annual operating costs. Projects were further selected to be representative of a range of project characteristics such as project size and type, client type and settlement size.

The case studies involved the collection of background information on each project. This included data from other data bases created for the evaluation, as well as project specific site plans and information. An on-site visit and interviews with project staff and tenants were undertaken, where feasible. A group of technical experts in the field of social housing administration reviewed the results of the case studies prior to their finalization.

The second source of information, the survey of public housing project managers, provides evidence on the incidence of potential for conversion, redesign and redevelopment within the public housing stock.

Conversion was found to be a costly physical intervention. Many conversions are from smaller units (i.e. bachelors) to larger units (i.e. one bedroom) and would result in a net decrease in the number of available units in the portfolio.

Approximately one-third of all projects with a need for conversions involve combining small units into larger ones. Conversion would be more justifiable if the units to be converted are in poor condition. Non-physical options such as a change in clientele for the units might be more practical solutions. Up to 2.2 per cent of projects and 5.7 per cent of units were identified as conversion candidates. Projects identifying a need for conversion were only considered if they also had a vacancy or turnover problem linked to unit size or type.

There is a need for redesign and redevelopment (modification/ regeneration) of a small portion of the public housing portfolio. The evaluation estimated that up to 500 projects (10.5 per cent of the portfolio) were candidates for some form of redesign and redevelopment. About 57 projects (1.2 per cent of the total portfolio) of these projects also do not meet meet NHA Minimum Property Standards. Although modification (regeneration) activities are not necessarily restricted to projects in poor condition, regeneration efforts to this date have been in projects which were in poor physical condition. These 57 projects are therefore the most likely candidates for redesign and redevelopment and constitute a lower-bound estimate.

Although estimating redesign and redevelopment costs is difficult, the evaluation provides a lower-bound estimate of \$133 million (for 57 projects) and an upper-bound estimate of \$289 million (for 500 projects). These estimates recognize that redesign and redevelopment needs are more serious in projects which fail the NHA standards. Furthermore, the lower-bound and the upper-bound estimates respectively include \$50 million and \$109 million in repairs and replacements included in the estimate of repairs and replacement for the stock as a whole.

The case studies identified redesign options including changes in site layout and major renovations leading to changes in the image and appearance of projects. They also identified redevelopment options including the addition and demolition of units as well as the addition of community facilities and non-residential uses. The addition of community facilities was an important option in large family projects, particularly large high-rise projects with few amenities suited to the needs and interests of children.

Not all projects with a redesign or redevelopment need have a major physical problem. Where major problems do exist the needs of the project are quite complex and warrant a thorough study. Many of the projects examined are experiencing a range of physical problems from major system failure due to poor original design. In addition, they could also be encountering social problems such as drug use and trafficking, vandalism

and violence. In some instances, the social problems were the main cause of concern in the project.

The case studies have indicated that some physical solutions have not addressed and therefore have not resolved the social problem and its cause. Several case studies noted the importance of working closely with tenants and building their trust and support. The case studies also indicated that managers have undertaken repair work without understanding the implications of their actions or in the absence of a thorough plan.

Complex social and physical problems require sound planning and a multi-disciplinary team of experts to investigate all the evident problems within a project and all the solutions that may apply, without a predisposition to recommending physical changes. The use of individuals with experience in other modification projects would ensure that previous experience is transferable.

F. Program Level of Effort Required to Maintain an Adequate Public Housing Stock

Having assessed the physical condition of the public housing portfolio, the evaluation then considered whether past efforts and levels of maintenance and modernization and improvement expenditures have been sufficient to maintain the condition of the public housing stock at minimum property standards. The analysis considered first, whether the overall pool of maintenance and M&I funding was sufficiently large to meet needs, and second, whether maintenance and M&I funding were appropriately allocated according to need.

A backlog is defined as the volume of needed repairs, replacements, additions and upgrades beyond the normal annual accrual of need in any given year. The backlog is estimated by comparing the estimated cost of repairs, replacements, additions and upgrades identified at the time of the physical inspections with the available funding for maintenance and modernization and improvement (M&I) for 1988. This approach assumes that all funds available were appropriately allocated according to the need for repairs, replacements, additions and upgrades.

The Physical Condition Survey estimated that \$349.3 million was needed for repairs and replacements to existing construction systems of public housing projects at the time of the inspections (November 1987 - March 1988). Another \$133.4 million was required for additions and upgrades to meet current code requirements or to realize major cost savings. Undertaking these repairs and replacements and the additions and upgrades would therefore require an estimated \$482.7

million. In comparison, a total of \$273.5 million was budgeted for maintenance (\$148.5 million) and M&I (\$125 million) in 1988. Assuming that all of the funds budgeted for maintenance and modernization and improvements in 1988 were appropriately allocated according to need, a shortfall of \$209.2 million would result (Table 17). The level of time and staff resources necessary in previous regeneration efforts indicate that any future national regeneration effort would have to be phased over several years. The cost estimates for redesign and redevelopment are therefore not included in the estimate of the backlog of repairs and replacements, additions and upgrades.

TABLE 17
ESTIMATION OF THE BACKLOG OF REPAIRS, REPLACEMENTS
ADDITIONS AND UPGRADES TO THE PUBLIC HOUSING STOCK

1988 maintenance and M&I budget	\$273.5 Million
Outstanding repairs and replacements	(\$349.3 Million)
Additions and upgrades	(\$133.4 Million)
BACKLOG	(\$209.2 Million)

The level of estimated backlog should be interpreted with some caution. At this point, no information is available on the annual accrual of repair and replacement needs in the public housing stock. It is therefore difficult to establish whether the backlog has increased or decreased in recent years.

The Administrative Expenses Data Base indicates that the level of combined maintenance and M&I expenditures has increased during the 1980's. Given an assumption that the annual level of expenditures for maintenance and M&I in recent years has exceeded the annual accrual of "new" repairs, replacements, additions and upgrades, the backlog could be decreasing.

Under this scenario, a continued increase in maintenance and M&I levels in future years could accommodate both the annual accrual of "new" need and the backlog identified in the Physical Condition Survey. This observation should be tempered by the fact that the level of "new" annual accrual of need is likely to increase with the aging of the stock.

Three major factors should be considered when interpreting the identified backlog of needs for repairs, replacements, additions and upgrades. First, given the aging of the public housing stock, the level of annual accrual of needs is likely to increase. Second, some of the repairs and replacements

identified in the Physical Condition Survey could be phased over the next five years, although most repairs and replacements were required within three years. Finally, a better allocation of maintenance and M&I resources according to need could improve the effectiveness of existing maintenance and M&I funding and of any additional funding made available in the future.

G. Allocation of Resources According to Need

A comparison of annual expenditures on maintenance and M&I during the 1979-1986 period and project condition ratings and estimated repairs and replacement requirements in 1988 provides an indication of the extent to which maintenance and M&I resources have not been adequately allocated according to need.

Public housing projects which fail or minimally meet the NHA standards do so despite significantly higher levels of maintenance and M&I expenditures per unit over the previous eight years than projects exceeding the standards. Projects failing the NHA standards, which represent 6.2 per cent of all units, received just under 10 per cent of total annual expenditures of \$154 million recorded between 1979 and 1986, but today require 21.8 per cent of all repair and replacement costs (Table 18).

Underfunding appears to have been particularly severe for public housing projects requiring \$5,000 or more per unit for repairs and replacement. These projects represent 7.5 per cent of the units in the stock and received 13 per cent of maintenance and M&I funding in the 1979-86 period, but currently require close to 45 per cent of all repairs and replacement expenditures.

Project managers in one-fifth of all projects reported that they postponed maintenance in 1987 because of lack of budget and close to one-third postponed M&I work for this reason. The highest incidence of projects where maintenance was postponed were those which failed to meet NHA minimum property standards, followed by projects which just met the NHA standards. Almost half of all projects requiring \$5,000 or more in repairs and replacements suffered from postponed modernization or improvement actions because of lack of budgets in 1987, higher than any other component of the portfolio. These projects also had the highest incidence of projects with postponed maintenance because of lack of budget in 1987 (close to 30 per cent).

TABLE 18
ESTIMATES OF AVERAGE ANNUAL
COMBINED MAINTENANCE AND M&I EXPENDITURES (1979-1986)
BY PROJECT CONDITION RATINGS (1987/88)

MAINTENANCE	/M&I	PER CENT OF	PER CENT OF TOTAL REPAIR & REPLACEMENT
(1988 \$MILLIONS)	PER CENT	UNITS	COSTS
15.08	9.8	6.2	21.8
90.60	58.8	51.5	58.6
48.40	31.4	42.3	19.6
154.08	100.0	100.0	100.0
	MAINTENANCE EXPENDITU (1988 \$MILLIONS) 15.08 90.60 48.40	15.08 9.8 90.60 58.8 48.40 31.4	MAINTENANCE/M&I CENT EXPENDITURES OF (1988 \$MILLIONS) PER CENT UNITS 15.08 9.8 6.2 90.60 58.8 51.5 48.40 31.4 42.3

SOURCE: Administrative Expense Data Base, Physical Condition

Survey, Program Evaluation Division, CMHC, 1988.

NOTE: Average annual maintenance and M&I expenditures for

the 1979-1986 period have been converted to 1988 dollars using the housing component of the Consumer

Price Index (February 1988).

H. Potential Impacts of the Aging of the Stock on Physical Condition

In 1988, when the Physical Condition Survey was conducted, the public housing stock had an average age of 14 years and was still relatively young. The age profile of the stock will change rapidly over the next 15 years. By 1993, more than 60 per cent of public housing projects (about 3,000) will be more than 15 years old (Table 19). By the year 2003, all 4,801 projects will be older than 15 years and over 2,900 (61 per cent) of them will be over 25 years old.

The Physical Condition Survey found that older public housing projects were associated with deteriorating physical condition and higher incidence of failure to meet NHA Minimum Property Standards. Projection of current conditions indicates that an estimated 55 additional projects would fall below the NHA standards every five years. Under this scenario, by the year 2003 over 330 or 6.9 per cent of all public housing projects would fail to meet the NHA standards. In terms of units, the number of units in projects failing to meet the NHA standards would be more than double by the year 2003, reaching close to 29,000 units or 14.0 per cent of all units in the stock (Table 20). The percentage of units in projects which exceed the NHA standards would decrease from 41 per cent in 1988 to 39 per cent by 1993, and to 37 per cent by 2003.

TABLE 19
PROJECTED AGE OF THE PUBLIC HOUSING STOCK, 1988-2003

PROJECT AGE	1988	PERCENTAGE OF 1993	PROJECTS 1998	2003
1 to 10 years	38.9	10.2	949	-
11 to 15 years	36.4	28.7	10.2	***
16 to 25 years	23.0	56.3	65.1	38.9
Over 25 years	1.6	4.9	24.7	61.1
TOTAL	100.0	100.0	100.0	100.0

SOURCE: Project Characteristics Data Base, Program Evaluation Division, CMHC, 1988.

TABLE 20
PROJECTION OF THE 1988 CONDITION OF
PUBLIC HOUSING PROJECTS FOR 1993, 1998 AND 2003

NHA STANDARDS	1988	PERCENTAC 1993	GE OF UNITS 1998	2003
Fails	6.5	8.4	11.7	14.0
Meets	52.3	52.4	50.3	49.2
Exceeds	41.2	39.2	38.0	36.8
TOTAL	100.0	100.0	100.0	100.0

SOURCE: Project Characteristics Data Base and the Physical Condition Survey, Program Evaluation Division, CMHC, 1988.

The aging of the stock will have an impact on the condition of the public housing stock and requirements for increased levels of maintenance, modernization and improvement expenditures. How fast this will occur and how large this increase will be is difficult to predict. As previously discussed, the Physical Condition Survey provides a snapshot of the condition of the stock at one point in time. There are no indicators of changes in the condition of the stock over time and of whether increased levels of maintenance and M&I expenditures in recent years have led to improvements in the overall condition of the stock. However, it is clear that enhanced management of the stock together with a reprofiling of expenditures to be more in line with need will go a long way toward addressing the future challenges of the public housing stock.

IV CLIENT SATISFACTION AND THE QUALITY OF LIFE

Data obtained through a survey of public housing residents provides the basis for the assessment of program targeting, the provision of adequate, suitable and affordable housing, client satisfaction and the quality of life provided in public housing projects. Conducted between November 1988 and March 1989, questionnaires were mailed to a total of 3,513 residents nationwide. Completed responses were returned by 2,798 residents (a response rate of 80 per cent).

A. Program Targeting, Housing Affordability and Core Need

The Public Housing Program is well targeted to households in need. Nationally, 96.1 per cent of all client households have incomes at or below the Core Need Income Threshold established for their area of residence. Core Need Income Thresholds estimate the income required to secure adequate and suitable accommodation without having to spend in excess of 30 per cent of household income for shelter costs.

In order to ensure that public housing is affordable to the program's clients, rents are geared to income. Under the Graduated Rent Scale, rents for fully serviced accommodation may range from 16.7 to 25 per cent of adjusted household income. Tenants receiving social assistance are required to pay the greater of the shelter component of welfare or the rent required under the Graduated Rent Scale. Provinces and territories are permitted to use their own rental scales. only requirement established by CMHC is that the federal share of the subsidy be based on whichever scale produces the lowest As a result of these flexibility provisions, significant variations exist among provinces and territories in terms of the calculation of eligible income, the items to be included in rent, and the rent-to-income ratio used in calculating the rent to be paid by tenants.

How affordable are public housing units? Average monthly shelter costs range from \$218 for bachelor units to \$347 for units with four or more bedrooms. Shelter costs include rent, water, gas, oil and electricity. Under the Graduated Rent Scale, rents charged for fully serviced accommodation (defined as including rent, heat, water, hot water, stove and refrigerator) are not to exceed 25 per cent of the household's adjusted income. Under some provincial and territorial rent scales, however, rental charges may be set at a higher proportion of income (e.g. 30 per cent). The Core Need indicator currently in use stipulates that a household has an affordability problem if it is required to spend 30 per cent or more of its income to obtain suitable and adequate shelter.

The data indicate that fully four-fifths of public housing client households spend 25 per cent or more of their household income on shelter (rent, water, gas, oil and electricity), while one-third spend at least 30 per cent (Table 21). Among those with affordability problems, the average difference between actual monthly expenditures and 30 per cent of income is \$60. For one-third of these households, the difference is less than \$25. Clients with affordability problems had lower household incomes, higher rents and higher expenditures on electricity than did households which spent less than 30 per cent of household income on basic shelter costs.

TABLE 21
SHELTER-COST-TO-INCOME RATIOS

RATIO OF SHELTER COSTS TO INCOME (PER CENT)	PER CENT OF HOUSEHOLDS	CUMULATIVE PER CENT
Less than 5	0.0	0.0
5.0 - 9.9	0.2	0.2
10.0 - 14.9	1.4	1.6
15.0 - 19.9	6.9	8.5
20.0 - 24.9	11.1	19.6
25.0 - 29.9	45.8	65.4
30.0 - 34.9	16.4	81.8
35.0 - 39.9	8.3	90.1
40.0 - 44.9	2.7	92.8
45.0 - 49.9	2.8	95.6
50 or more	4.4	100.0

SOURCE: Survey of Public Housing Tenants, Program

Evaluation Division, CMHC, 1989.

NOTE: Shelter costs include payments made for rent, water

electricity, gas and oil.

The incidence of households spending 30 per cent or more of household income for shelter is highest in British Columbia and New Brunswick, where 77.8 per cent and 73.1 per cent, respectively, of client households spend 30 per cent or more of their household income on shelter costs. This finding is not surprising since neither province uses a graduated rent scale and both charge clients a flat 30 per cent of adjusted income for rent. The incidence of shelter-cost-to-income ratios of 30 per cent or more is considerably higher among family households (44.4 per cent) than seniors (25.4 per cent) and is particularly high among single parent families (49.3 per cent). The proportion of income spent on shelter rises with increasing household size.

The incidence of shelter costs being equal to or greater than 30 per cent of household income was only marginally higher

among social assistance recipients (37.7 per cent) than other households (33.1 per cent). However, because the income received by social assistance recipients is in part determined by the shelter component of social assistance benefits, shelter-cost-to-income ratios for this group may not be reliably convey an indication of housing affordability.

Provincial and territorial variations in rental scales have an impact on the relative affordability of public housing provided to clients residing in different parts of the country. Almost four-fifths of client households pay more for fully serviced accommodation than the rent applicable under the Federal Graduated Rent Scale. The average difference between reported rents and estimated GRS rents is \$28.

The core need indicator incorporates three dimensions of need: affordability, adequacy and suitability. A household is judged to be in core need if it has insufficient income to obtain adequate and suitable housing without experiencing an affordability problem. The determination of whether a household has sufficient income to obtain suitable and adequate housing within their local area is made by comparing the household's income to the applicable Core Need Income Threshold. The indicator of housing adequacy currently incorporated in the Core Need indicator is that of the "need for major repairs". The suitability of dwelling units is determined by reference to the National Occupancy Standard which ensures that crowding problems do not exist and that an adequate number of bedrooms is available for the household. Bachelor or studio apartments have been assumed to be equivalent to one bedroom units for the purpose of this analysis.

Estimates of the incidence of core need among public housing clients are presented in Table 22. This analysis estimates that 39.9 per cent of client households remain in core need despite the assistance provided to them under the Public Housing Program. The principal problem experienced is one of housing affordability (shelter costs comprising 30 per cent or more of household income). Fully 80.9 per cent of client households who are estimated to be in core need have affordability problems (either affordability alone or in conjunction with other problems).

The estimated incidence of core need is highest in British Columbia (71.8 per cent) and New Brunswick (68.9 per cent) and and is roughly twice as high among residents of family projects as residents of seniors projects (Table 23). Social assistance recipients had a higher incidence of being in core need (46.8 per cent) than did other households (36.8 per cent). Among household types, the highest incidence of core need is found among single parent families, couples without children and "other" household types. The incidence of core need increases with household size.

TABLE 22
CORE NEED AMONG PUBLIC HOUSING CLIENTS

PROBLEM	INCIDENCE (PER CENT)	PROPORTION OF TOTAL
Affordability only	25.3	63.6
Adequacy only	5.5	13.9
Suitability only	1.8	4.5
Affordability and Adequacy	4.8	12.1
Affordability and Suitability	1.4	3.4
Adequacy and Suitability Affordability,	0.3	0.7
Adequacy and Suitability	0.7	1.8
ALL	39.9	100.0

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division, CMHC, 1989.

B. Improvements in Housing Conditions

Another measure of program performance is the extent to which public housing has improved the living conditions of clients. Most public housing residents were previously housed in either the private rental market (45.0 per cent) or the private ownership market (23.3 per cent). Approximately one-fifth moved to their current unit from a different public housing project, or another unit in the same project. High rental costs and inadequate dwelling size were the most commonly reported reasons for moving to public housing, cited by 57.1 and 44.4 per cent of respondents, respectively, as being either "somewhat" or "very" important reasons for their move (Table 24). Other frequently cited reasons were the poor state of repair of their dwelling (35.4 per cent) and the need to establish their own household (33.9 per cent).

Family and senior citizen clients share many of the same reasons for moving to public housing. However, inadequate space was cited with greater frequency by family clients as being an important factor in their decision to move. Moving in response to infirmity or disability was more prevalent among senior citizen clients than family clients, as was the desire to be near friends and family. Having applied for a public housing unit, the majority of clients were allocated a unit within six months (61.3 per cent). Over 78 per cent of respondents reported that they obtained a unit within one year of application.

In comparing their current housing unit to the one they occupied previously, respondents cited improvements in rental costs (67.1 per cent), dwelling size (64.3 per cent), state of

TABLE 23
INCIDENCE OF CORE NEED AMONG PUBLIC HOUSING CLIENTS
BY SELECTED CHARACTERISTICS

CHARACTERIS	TICS	PER CE	INT OF HOUSEHOL
PROVINCE/TE	RRITORY		
Newfoundlan			61.0
Prince Edwa	rd Island		52.7
Nova Scotia			43.3
New Brunswi			68.9
Quebec			34.3
Ontario			38.2
Manitoba			51.3
Saskatchewa	n		20.6
Alberta	**		37.0
British Col	umbia		71.8
Yukon	amora		/ 1.0
Northwest T	erritories		
NOT CHWEST 1	ETITCOTIES		-
CLIENT TYPE			
Family			51.4
Senior			27.4
Family & Se	nior		42.2
SOURCE OF I	NCOME		
Social Assi	stance		46.8
Other			36.8
HOUSEHOLD T	YPE		
	living alone		27.6
	ith children		56.4
Couple with			55.2
-	out children		32.1
Other	Odd Giil Lal Cii		57.1
OCHET			J /
HOUSEHOLD S	IZE		0.7.4
One person			27.4
Two persons			42.7
Three perso			50.2
Four person			54.0
Five or mor	e persons		63.7
ALL			39.9

repair (56.6 per cent) and privacy/independence (53.0 per cent) (Table 25). These are areas which most closely conform to formal program objectives (affordable, suitable and adequate housing). The Public Housing Program has been less

TABLE 24
REASONS FOR MOVING INTO PUBLIC HOUSING

	FAMILY PROJECTS	SENIORS PROJECTS	ALL PROJECTS
REASONS FOR MOVING	PER CENT	PER CENT	PER CENT
Poor state of repair	35.4	32.8	35.4
Unit too large	15.2	21.0	18.0
Unit too small	58.4	25.4	44.4
Rental costs too high	57.7	54.4	57.1
Too much crime/vandalism Lack of shopping,	25.5	20.4	23.6
recreation or health care Moved to be near	24.8	31.8	28.4
friends or family	15.4	34.0	24.2
Infirmity or disability	14.3	32.6	23.6
Evicted from unit Needed to establish	5.2	3.4	4.8
own household	36.6	30.6	33.9

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division,

CMHC, 1989.

NOTE: Reasons cited by clients as being either somewhat or very

important in their decision to leave their previous residence.

TABLE 25
COMPARISON OF CURRENT TO PRIOR CONDITIONS

	PER CEN	VI OF HOU	SEHOLDS
ASPECT	MUCH WORSE	SAME	MUCH BETTER
State of repair	5.8	37.6	56.6
Size of apartment	9.5	26.2	64.3
Rental costs	5.6	27.3	67.1
Crime/vandalism problems	24.8	44.3	30.9
Closeness to shopping &			
recreational facilities	6.9	48.6	44.5
Closeness to friends & family	8.4	56.7	34.9
Privacy or independence	8.7	38.3	53.0

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division, CMHC, 1989.

successful in generating improvements in terms of providing safe environments. When comparing their current dwelling to the one they occupied previously, almost one-quarter of survey

respondents reported worse conditions with respect to crime and vandalism, only slightly less than the proportion citing improvements (30.9 per cent). Among family clients, a greater proportion reported worse problems with crime and vandalism conditions (35.6 per cent) than reported improvements (21.6 per cent).

C. Client Satisfaction and Quality of Life

Most clients are satisfied with their dwelling unit and nearby area overall. Only 12.6 per cent of respondents expressed overall dissatisfaction with their home, compared to 23.2 per cent cited by a survey of renter households in general (Table 26).

TABLE 26
SATISFACTION WITH DWELLING UNITS AND NEARBY AREAS
PUBLIC HOUSING CLIENTS VS. ALL RENTER HOUSEHOLDS

PER CENT OF HOUSEHOLDS

SATISFACTION RATING	PUBLIC HOUSING	ALL RENTER	ALL
	CLIENTS	HOUSEHOLDS	HOUSEHOLDS
Very satisfied	55.0	33.3	54.5
Somewhat satisfied	32.4	43.5	32.3
Somewhat dissatisfied	10.2	13.1	8.1
Very dissatisfied	2.4	10.1	5.1
ALL	100.0	100.0	100.0

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division, CMHC, 1989; and Focus Canada Survey, Environics Research Group, January, 1989.

Some differences are apparent in the level of satisfaction expressed by different client groups. Fully 95.6 per cent of residents of seniors projects expressed satisfaction with their dwellings and nearby areas compared to 79.2 per cent for family projects and 80.6 per cent for mixed family/senior Public housing clients in New Brunswick, projects. Newfoundland, Ontario, Nova Scotia and Manitoba expressed the greatest overall dissatisfaction with their dwellings and nearby areas. Higher levels of satisfaction were observed among residents of newer projects. Among age categories, the greatest dissatisfaction was expressed with projects completed between 1964 and 1969 (24.2 per cent). Other components of the portfolio with the highest incidence of dissatisfied clients were projects with a mixture of building types, both with high rises (23.9 per cent) and without high rises (20.4 per cent); projects with under 10 units (21.5 per cent) and

projects located in cities with 100,000 or more population (16.7 per cent).

While clients are generally satisfied with their homes overall, higher levels of dissatisfaction were cited with respect to specific aspects of their home or broader living environment (Table 27). The greatest dissatisfaction was expressed over the way projects are run (19.4 per cent). When individual aspects of project management are examined, security emerges as a major concern (with 26.2 per cent of clients expressing dissatisfaction with project management in this area) (Table 28). Clients also expressed a similar degree of dissatisfaction with the speed with which their requests were responded to by project staff.

TABLE 27
DETAILED CLIENT SATISFACTION RATINGS

	PER CENT OF HOUSEHOLDS				
ITEM	NOT SATISFIED	SATISFIED	VERY SATISFIED		
ALL PROJECTS		· · · · · · · · · · · · · · · · · · ·			
Dwelling interiors	13.4	61.4	25.2		
Project buildings	12.1	67.9	20.0		
Project grounds	14.8	60.0	25.2		
Way project is run	19.4	59.0	21.6		
Rent-to-income	12.6	66.1	21.3		
Nearby area/community	8.8	65.1	26.1		
Shopping, health care etc.	13.1	55.0	31.9		
FAMILY PROJECTS Dwelling interiors	17.8	65.1	17.1		
Project buildings	18.8	67.8	13.4		
Project grounds	25.2	58.3	16.5		
Way project is run	27.3	58.0	14.8		
Rent-to-income	17.0	60.5	22.6		
Nearby area/community	11.8	62.7	25.5		
Shopping, health care etc.	14.2	52.1	33.7		
SENIORS PROJECTS					
Dwelling interiors	9.2	57.9	32.9		
Project buildings	4.9	68.3	26.8		
Project grounds	5.3	60.9	33.8		
Way project is run	11.5	60.2	28.3		
Rent-to-income	8.8	70.2	21.0		
Nearby area/community	4.8	67.0	28.2		
Shopping, health care etc.	10.9	57.6	31.5		
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SOURCE: Survey of Public Housing Tenants, Program Evaluation Division, CMHC, 1989.

TABLE 28
CLIENT SATISFACTION WITH PROJECT MANAGEMENT

PER CENT OF HOUSEHOLDS

ITEM	NOT SATISFIED	SATISFIED	VERY SATISFIED	
ALL PROJECTS		92F4444		
Maintenance of grounds	14.2	56.4	29.4	
Repairing of unit	19.7	53.7	26.6	
Security	26.2	52.1	21.7	
Information (comm/social serv)	17.0	62.7	20.3	
Information about project	18.9	63.5	17.6	
Speed in handling requests	25.2	52.0	22.8	
FAMILY PROJECTS				
Maintenance of grounds	20.3	59.9	19.8	
Repairing of unit	31.6	50.1	18.3	
Security	41.9	45.2	12.9	
Information (comm/social serv)	28.1	61.0	10.9	
Information about project	28.3	61.8	9.9	
Speed in handling requests	38.2	46.2	14.6	
SENIORS PROJECTS				
Maintenance of grounds	7.3	54.2	38.6	
Repairing of unit	8.0	57.7	34.2	
Security	11.4	58.2	30.4	
Information (comm/social serv)	7.3	63.7	29.0	
Information about project	9.0	65.3	25.7	
Speed in handling requests	12.9	57.8	29.3	

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division, CMHC, 1989.

Overall satisfaction levels of public housing clients with respect to the maintenance of grounds and common areas, security against crime and vandalism and the speed with which requests are handled by the property manager are similar to those recorded by renter household in general (Focus Canada Survey, Environics Research Group, January 1989). A higher proportion of public housing clients reported that they were satisfied with unit repairs (80 per cent) than did renters in general (71 per cent).

As was the case with other aspects of public housing, families expressed greater dissatisfaction with project management than did seniors. The disparity in levels of dissatisfaction between family and seniors clients was most pronounced with respect to the provision of information concerning community and social services, the repairing of dwelling units and security. Almost one-half (41.9 per cent) of all family clients were dissatisfied with project security.

The majority of public housing residents reported that key facilities and services (health care services, social support services, child day care, parks and play areas, and meeting rooms) were available on-site. Generally speaking, seniors projects appear to be better serviced than those serving families (with the exception of family-oriented services such as child day care and parks and play areas). High levels of satisfaction were reported with respect to on-site facilities and services, where they had been made available. The highest incidence of client dissatisfaction was recorded for parks and play areas (21.7 per cent) and meeting rooms (18.2 per cent) in family projects.

Most important facilities and services are accessible to public housing clients within the nearby community. Out of a list of fifteen possible facilities and services, all were reported to be available by at least 85 per cent of public housing residents with the exception of gardening areas (68.7 per cent) and child day care (65.5 per cent). Client satisfaction with community facilities and services is The highest incidence of client generally high. dissatisfaction was expressed with gardening areas (24.4 per cent), parks or play areas (14.8 per cent), entertainment (14.3 per cent), recreational facilities (13.2 per cent) and child day care (11.6 per cent). As was the case with on-site facilities and services, satisfaction with community facilities and services is greater among senior citizens than family clients.

Survey data confirm that crime is viewed by both residents and project managers to be a significant problem in public housing projects. Almost half of all respondents reported that vandalism and property theft were problems in their project and just over one-quarter reported problems with drug dealing and assault (Table 29). Just over one-third of survey respondents reported that one or more of the four types of crime identified (i.e. property theft, vandalism, drug dealing and assault) were a major problem in their project. In family projects, the figures are much higher (57.5 per cent). Crime problems threaten the achievement of the objectives of providing "decent, safe and sanitary housing".

Project managers' assessments of the incidence of problems with criminal activity conform fairly closely to those provided by public housing residents. The principal distinction between client and property manager assessments is that property managers more frequently judged the problems to be "minor" as opposed to "major" problems than did residents. This finding is not altogether surprising, insofar as residents are both in a better position to be aware of criminal activity and are most directly affected by it.

TABLE 29
SEVERITY OF CRIME PROBLEMS
RESIDENTS' AND PROJECT MANAGERS' ASSESSMENTS

PER CENT OF SURVEY RESPONDENTS

PROBLEM	MAJOR PROBLEM	MINOR PROBLEM	NOT A PROBLEM
RESIDENTS' ASSESSMENT	<u> </u>		
Vandalism	20.7	24.9	54.3
Property theft	15.1	27.6	57.3
Drug dealing	18.8	10.0	71.2
Assault	12.0	14.8	73.2
PROJECT MANAGERS' AS:	SESSMENT		
Vandalism	13.1	37.7	49.2
Property theft	7.9	34.0	58.1
Drug dealing	12.6	12.6	74.8
Assault	6.5	19.3	74.2

SOURCE: Survey of the Public Housing Tenants, Program Evaluation Division, CMHC, 1989.

Nonetheless, given the fact that security is the area of project management where clients have expressed the greatest dissatisfaction, these data suggest that project managers may underestimate the importance of addressing the problems associated with criminal activity in public housing projects.

The incidence of crime being reported as a major problem is markedly higher among residents of family projects than those residing in seniors projects (20 times as high in the case of drug dealing, 7 times as high for vandalism and for assault and 6 times as high for property theft) (Table 30). Crime also appears to be largely associated with projects located in urban areas with populations of 100,000 or more. The principal exception to this trend is that of assault, which is almost as prevalent in rural areas and small towns with fewer than 10,000 people as it is in larger cities.

Generally speaking, problems with crime do not appear to be a feature of public housing per se, but rather are reflective of the dynamics of crime prevailing in the community at large (e.g. related to low incomes, large cities, etc.). The incidence of major problems with vandalism in family housing projects (as revealed in residents' perceptions) were generally similar to those recorded by renters and low-income households in general with respect to their areas of residence (Focus Canada Survey) (Table 31). However, the incidence of major problems with property theft, assault and drug dealing reported by family clients were generally lower than those

TABLE 30
INCIDENCE OF MAJOR CRIME PROBLEMS
BY SELECTED PROJECT CHARACTERISTICS

PER CENT OF RESPONDENTS REPORTING THAT CRIME IS A MAJOR PROBLEM

PROJECT CHARACTERISTICS	THEFT	VANDALISM	DRUG DEALING	ASSAULT	ONE OR MORE TYPE(S) ₁ OF CRIME ¹	
PROVINCE/TERRITORY						
Newfoundland	3.9	15.0	13.3	3.5	24.4	
Prince Edward Island	4.1	2.7	2.5	0.5	6.8	
Nova Scotia	14.2	13.6	17.8	11.6	21.3	
New Brunswick	20.4	18.6	21.3	12.1	36.1	
Quebec	13.8	13.5	9.6	9.3	24.4	
Ontario	15.7	29.6	27.5	15.0	44.3	
Manitoba	22.5	14.6	16.7	9.4	37.9	
Saskatchewan	5.5	5.1	2.4	4.1	8.9	
Alberta	14.4	12.9	8.8	4.5	23.8	
British Columbia	16.5	26.2	21.7	10.5	47.8	
Yukon	_	New York		_	-	
Northwest Territories		-	••	_	es.	
101 011,000 2011 2001 200						
CLIENT TYPE						
Family	24.5	34.7	36.0	20.5	57.5	
Senior	4.0	4.8	1.8	2.9	8.9	
Family & Senior	27.4	29.3	25.4	20.0	49.1	
i amily a solitor	A-1 0 J,	23.0	23.1	20.0	43.1	
MUNICIPALITY SIZE						
Under 2,500	7.9	4.1	2.9	11.2	17.4	
2,500 - 9,999	6.7	9.7	12.7	12.9	20.4	
10,000 - 29,999	7.6	6.5	4.7	4.7	15.2	
30,000 - 99,999	9.7	12.7	8.5	3.2	21.1	
100,000 - 499,999	20.7	36.5	29.9	17.7	53.6	
500,000 or more	22.1	24.5	29.7	15.5	45.8	
PROJECT SIZE (UNITS)						
Under 10	11.2	1.3	2.5	10.6	14.2	
10 - 49	7.2	9.5	7.7	8.7	17.9	
50 - 99	13.1	10.5	7.7	6.8	23.4	
100 - 199	17.3	31.1	23.1	12.4	46.0	
200 or more	24.9	32.5	40.6	20.2	57.0	
PROJECT TYPE			No.			
Detached, Semi & Row	21.0	23.4	24.6	15.5	42.6	
Low rise	5.8	7.6	3.9	3.8	11.0	
High rise	10.8	22.1	13.7	10.6	34.1	
Mixed (no high rise)	20.7	23.7	31.1	12.2	54.4	
Mixed (with high rise)	32.4	38.8	57.8	30.7	68.7	
ca (with ningh inde)	J. L. 172	30.0	31.0	30.7	00.7	
ALL	15.1	20.7	18.8	12.0	35.1	

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division, CMHC, 1989. **NOTE:** Property theft, vandalism, drug dealing or assault.

TABLE 31
RESIDENT ASSESSMENTS OF CRIME PROBLEMS
PUBLIC HOUSING VS. THE GENERAL POPULATION

	INCIDENCE OF	F CRIME BEING REPO	ORTED AS A MA	AJOR PROBLEM
	VANDALISM	PROPERTY THEFT	ASSAULT	DRUG DEALING
RESIDENTS	PER CENT	PER CENT	PER CENT	PER CENT
PUBLIC HOUSING				
All	20.7	15.1	12.0	18.8
Families	34.7	24.5	20.5	36.0
Seniors	4.8	4.0	2.9	1.8
COMPARISON GROUPS				
All households	28.6	34.3	19.6	38.0
All renters	35.1	40.2	28.4	49.5
Low-income ¹	36.1	39.2	25.0	49.4
Low-income ¹ Familieș ²	26.5	33.3	17.5	39.1
Seniors ³	28.3	37.8	20.6	37.5

SOURCE: Survey of Public Housing Tenants, Program Evaluation Division,

CMHC, 1989; data for comparison groups were obtained from the Focus Canada Survey, Environics Research Group, January 1989.

NOTE: 1 Households with annual incomes of less than \$15,000.

Households with children under 18 years of age living at home.

'Respondent aged 60 years or more.

recorded among renters and low-income households. Major problems with crime in senior citizen projects were much lower than those reported by senior citizens in the population at large.

The extent to which residents of public housing projects are integrated within the surrounding community was another issue examined by the evaluation, using information supplied by respondents to the Survey of Public Housing Project Managers. Public housing project managers indicated that in the majority of the portfolio residents were somewhat closely involved in the nearby community and that community members met and visited fairly freely and regularly with project residents. In only one-fifth of the portfolio did project managers feel that residents were not in any way closely involved in the community. In one-quarter of the portfolio project managers reported that community members did not visit freely or regularly with project residents.

In only a very few cases did project managers indicate that there was clear evidence of severe isolation of residents from the community, whether reflected in community services not being regularly available to project residents (3.3 per cent), significant social barriers existing between residents and community members (9.1 per cent), project residents having severe difficulty in using community and social services (4.5 per cent), projects not requiring interaction with the community due to their relative self sufficiency (3.4 per cent) or projects being physically isolated from other residential communities (1.8 per cent).

When the Public Housing Program was initially devised, it was intended to be a source of temporary housing for households with transitory needs. The survey evidence suggests instead that for the majority of client households, public housing is serving as a source of medium-to-long-term accommodation. Well over one-half (60.3 per cent) of respondents reported that they have lived in public housing for at least five years. Just over one-quarter (26.2 per cent) reported that they have lived in public housing for 10 years or more.

Expressed moving intentions underscore the extent to which public housing is viewed by clients to be a medium to long term source of accommodation. Few respondents expressed the intention of moving (17.7 per cent). Fewer still could say when they intend to move (9.3 per cent). Only 3.5 per cent of respondents reported that they intend to move out of public housing within one year. By comparison, a recent survey of the renter population in general reported that 36 per cent of respondents indicated that they plan to move within one year (Focus Canada Survey, Environics Research Group, January 1989).

A portion of the public housing stock is underutilized. Just over 6 per cent of all units were vacant for one month or more during the year preceding the survey. The most common reasons for long-term vacancies were lack of need, physical condition and unit suitability. Vacancy rates were higher in rural areas, where underutilization is predominantly characterized by low need for public housing units. Projects with unsatisfactory facilities and services and those located near derelict or dangerous buildings had higher than average vacancy rates.

V MANAGEMENT PRACTICES AND PERFORMANCE

A. MANAGEMENT PERFORMANCE: PROJECT LEVEL

The evaluation examined management practices at the project level. Four areas of management at the project level were examined:

- 1. The level of staffing resources available;
- 2. The management of physical condition;
- 3. The management of unit preparation time; and
- 4. Tenant involvement in management.

While the majority of project managers are responsible for portfolios of less than 100 public and social housing units, the responsibility for the management of more than three-quarters of the total stock falls on the less than a quarter of all managers who manage portfolios of 200 units or more. Generally speaking, managers of older projects, projects which house family clients and those which are in the poorest condition are also responsible for larger portfolios.

Overall, the incidence of projects with on-site offices is fairly low (just under 20 per cent). However, aggregate analysis at the national level did not identify any relationship between the existence of on-site offices and tenant satisfaction. Travel time did not constitute a major problem for project managers, with only 11 per cent of managers reporting travel time to be a problem. Managers experienced more problems with travel time as the size of their portfolios increased.

The level of staff resources per 100 units was lower for older projects, larger projects, projects with high rise buildings and projects with a mixture of building types. Although economies of scale may be associated with larger and high-rise projects, it is questionable whether the savings are sufficiently large to account for their lower staffing levels than for smaller projects, projects composed of detached, semi-detached and row housing.

Overall, managers have considerable experience, with an average of 6.1 years as public housing managers. There are no great differences in the years of experience of project managers across various components of the public housing portfolio.

The highest level of training attained by project managers is commonly high school or the completion of a trades certificate. Only one-tenth of managers are Certified

Property Managers (CPM) or have received other designation or accreditation. Ontario, Manitoba, Saskatchewan and British Columbia account for almost all accredited managers. Within these four provinces the incidence of accreditation was higher among managers of older and larger projects.

The survey of public housing project managers indicated that maintenance and M&I were postponed from 1987 to another year in 24.2 and 34.0 per cent of projects, respectively. A lack of budget was the most common reason, reported in over 75 per cent of such cases, for postponement of maintenance and M&I. Although the analysis did not identify any strong relationship between postponement of maintenance and M&I and project condition, higher incidence of postponement was found for larger projects, more complex building types and family projects. These projects also have a higher incidence of staffing and budget problems.

This and further evidence presented earlier suggests that the postponement of M&I may be a problem for the small proportion of the portfolio which is in the very worst condition and requires the highest level of repairs and replacements. Furthermore, a definite link between postponement of M&I because of lack of budget and project size was identified.

With respect to the management of condition, project managers showed a propensity to rate the condition of their projects higher than the ratings provided by CMHC inspectors. Projects may therefore be maintained at a lower level than they should be.

Unit preparation time was found to decrease as turnover increased. With less than 0.5 per cent of unit months lost to unit preparation, unit preparation times are not a major management problem.

There is some form of tenant involvement in most public housing projects but it is not formalized through tenant committees. Only a minority of projects, 13.7 per cent, have no form of tenant involvement at all. The majority of public housing projects have some form of tenant involvement in the maintenance of grounds and common areas, social or recreational programs, protection against vandalism and project security.

Although meetings between project staff and tenants occur in almost 40 per cent of projects, meetings between project staff and tenant committees occur in only 15.9 per cent of projects. This indicates that, although some form of tenant involvement exists in the majority of projects, this involvement is not

usually organized through a tenant committee structure. Meetings are more common in seniors projects and in larger public housing projects.

Project managers are open to advice from tenants and to the formation of tenant committees. The support of project managers for direct tenant involvement in the management of projects is much lower. Managers in 75 per cent of projects agreed they should pay close attention to the advice of individual tenants. Furthermore, managers in over 60 per cent of projects agreed that tenant organizations should exist to provide advice and suggestions to the project management team.

Managers in close to half of public housing projects agreed that tenants should have \underline{no} role in the management of their project. The opposition of project managers increase if major tenant involvement is considered. Managers in close to 80 per cent of projects disagreed with the statement that tenants should play a \underline{major} role in the management of their project.

Project management provides support for tenant meetings in just over one-quarter of public housing projects. Support (i.e. meeting spaces and materials) for tenant meetings is provided by management in over one-quarter of public housing projects, including over half of public housing units. Support for tenant meetings is more common in seniors projects and in larger public housing projects.

Project managers assessed that meeting rooms were satisfactory in just over half of public housing projects, including close to 70 per cent of all public housing units. Meeting rooms are not satisfactory in 7.0 per cent of projects, including 8.8 per cent of all units, or simply not available in 38.7 per cent of projects, including 21.5 per cent of units. Meeting rooms are more available in seniors projects and in larger projects.

More than 80 per cent of tenants are satisfied with the way their project is run. Tenants were most dissatisfied with the performance of management with regard to security and the speed in handling requests. Families also expressed greater dissastisfaction than did seniors.

Tenant satisfaction does not vary by their level of involvement, but tenants want a greater role in the running of their project. No causal relationship can be established between level of involvement and satisfaction with project management as it remains unclear whether tenant dissatisfaction with project management leads to involvement or whether involvement itself is a source of dissatisfaction.

Irrespective of their current level of involvement, approximately one third of tenants are in favour of greater tenant involvement in the management of their project. The majority of decided tenants want more involvement, but over one-third of surveyed tenants did not express an opinion.

B. Provincial and Territorial Support to Project Management

Although CMHC is a major financial contributor to public housing in Canada, it does not manage the public housing portfolio, and has instituted very few controls over its management. Through the federal, provincial and territorial agreements, responsibility for the management of the public housing portfolio in Canada is vested almost exclusively with the provinces and territories. The Public Housing Programs have evolved from the federal/provincial/territorial operating agreements. These agreements were initially developed for the delivery of new housing and include very few references to how the public housing portfolio should be managed. As a result each provincial and territorial management program has evolved differently.

The analysis of management practices and performance was based on data collected from four sources: 1) provincial and territorial program operations guidelines or manuals (where available); 2) discussions with provincial and territorial representatives; 3) the survey of public housing project managers; and 4) the survey of public housing tenants.

Because of the provincial and territorial variations in the size and other characteristics of the stock, it is not assumed that one management structure is appropriate for all provinces and territories. The structure of management organization in the provinces and territories follows two basic models. local housing authority model, has day-to-day management responsibility decentralized to the local housing authority Within this decentralized management structure, the level. provinces have varying degrees of influence over the activities of the local housing authorities. An alternative approach involves direct management of the units by the In these cases project managers either do not exist (Newfoundland and New Brunswick) or they report directly to the staff at regional or head office (British Columbia and seniors projects in Prince Edward Island).

Decentralization has advantages and disadvantages. With decentralized authority, guidelines or policies are necessary to effect consistent decision making with regard to tenant issues and the physical and financial management of the stock. Further, the physical dispersal of the program to communities within the provinces makes the communication of these policies and guidelines difficult. The advantages of decentralization are project-level decision-making capability which improve response times and responsiveness to local conditions.

Various forms of direction and support can be used by higher levels of authority to enhance the consistency with which policy is applied and to enhance the skills and knowledge of the people managing and maintaining the program at the local level.

Support to lower levels of the organization may consist of written information (policies and guidelines), training, orientation, meetings for communication and feedback, and access to more specialized and experienced staff.

The evaluation examined provincial and territorial support of the management of the portfolio in six specific areas: support given to project level management, approaches to tenant/project staff interaction, levels of accreditation and training of project management, management of unit condition, management of project condition, and overall management planning for operational efficiency and effectiveness.

Provinces and territories provided local housing authorities with sound program manuals and training/communication programs. All provinces and territories had program manuals, although most were lacking in one area or another (i.e. tenant relations, maintenance). Training was encouraged, with funding assistance being provided or internal programs offered in most provinces and territories. Similarly, in most provinces and territories staff support was available at the regional or provincial/territorial levels. Maintenance guidelines were found to be one area of weakness in provincial and territorial support, principally because maintenance guidelines were incomplete or because they did not include follow-up monitoring.

Provincial or territorial support for tenant/project management interaction was generally found to be strong. Where portfolio or project size warrants, projects have on-site offices and community resource workers. Involvement of tenants on boards and associations, and day-to-day or regular contact with tenants is also strong. Tenant involvement in committee work varies greatly but for the most part focuses on security or social related activities.

Very few provinces and territories have project managers with property management accreditation either complete or in progress. However, project managers in most provinces and territories have pursued courses in budget planning, tenant relations, property inspections or trades.

An examination of the management of unit condition found that most provinces did not have adequate guidelines governing unit inspections and tenancy checks. Similarly, many provinces and territories did not have adequate means of permitting tenants

to contact project staff. In most cases project managers controlled maintenance budgets at the project level allowing for greater responsiveness to tenant requests.

Most provinces and territories had three to five year modernization and improvement (M&I) plans to assist in managing project condition. However, very few provinces and territories encourage the reporting of repair costs to promote preventive maintenance or monitor maintenance practices. Employee reports at the project level are used by most project managers to prioritize M&I.

Strong relationships were identified between three key composite indicators of management performance and project condition: the level of accreditation and training of project managers, the management of unit condition, and the presence of management planning.

These results show that there are efforts to be made at both the provincial/territorial and project level which will have a positive effect on management of the program. Although few manage the stock directly, the provinces and territories can effect a great deal of change by recommending procedures to project level staff, increasing their monitoring of the program and providing more training and other forms of support to project level management. Provinces and territories also have the ability to formulate policy on such issues as tenant participation in project management.

VI PROGRAM COSTS

Few explicit cost control quidelines exist for the operating phase, a reflection of the fact that responsibility for day-to-day administration was vested with provincial and territorial housing agencies. To limit excessive administrative overhead, administrative expenses have been limited to six per cent of total operating costs for the Guidelines also place limits on the amount of expenditures which may be made on modernization and improvements without obtaining the approval of CMHC. mid-1989, the review thresholds for modernization and improvement expenditures were \$100,000 per project or \$1,000 per unit. In July 1989, this review limit was increased to \$250,000 per project and \$10,000 per unit with the exception of projects which are less than five years old, where the \$1,000 per unit limit was retained. In cases where the estimated costs of proposed M&I work exceeds these guidelines, CMHC concurrence is to be obtained prior to its inclusion in the budget.

An administrative expense data base was prepared specifically for the evaluation. The information contained in this data base represents "actual" costs as opposed to "adjusted" costs. For example, where administrative costs have been adjusted to meet the 6 per cent guideline the actual rather than adjusted costs were recovered in the data base.

Expenditures averaged \$5,545 per unit in 1986. With revenues of approximately \$2,450 per unit recovering just under one-half (44.2 per cent) of total expenditures, an average operating loss of \$3,098 per unit was recorded. Approximately 54.8 per cent of operating losses for the combined Section 79 and Section 81/82 portfolios are covered by federal subsidies, with the remainder being contributed by provincial and municipal governments (42.1 per cent and 3.1 per cent, respectively). The average annual federal subsidy for each unit of public housing supported by the program was \$1,698 in 1986.

The largest single budget component by far is amortization expenses, which accounted for over one-third (37.2 per cent) of total expenditures in 1986. Municipal taxes account for a further 14.0 per cent of total expenditures. Together, amortization and taxes constitute over one-half (51.2 per cent) of the total expenditures on the public housing portfolio in 1986. After amortization and taxes, the remaining expenditures are allocated among project operations (14.4 per cent), utilities (13.0 per cent), maintenance (7.4 per cent), modernization and improvement (8.3 per cent) and administrative costs (5.8 per cent).

Real operating losses per unit declined over the course of the 1979-86 period. After accounting for inflation (using the housing component of the Consumer Price Index), real operating losses per unit were 14.5 per cent lower in 1986 than they were in 1979 (Table 32). This decline in operating losses is principally the result of a marked increase in real revenues per unit (19.0 per cent), as well as a 2.5 per cent reduction in operating expenditures per unit. With revenues increasing at a faster pace than expenditures, the rate of cost recovery has steadily increased over the course of the 1979-86 period, from 38.8 per cent in 1979 to 48.6 per cent in 1986.

TABLE 32
AVERAGE ANNUAL EXPENDITURES, REVENUES AND OPERATING LOSSES
PER UNIT, 1979-1986 (CONSTANT \$1986)

	EXPENDITURES		EXPENDITURES REVENUES			OPERATING LOSSES		
YEAR	AVERAGE PER UNIT	PER CENT CHANGE	AVERAGE PER UNIT	PER CENT CHANGE	AVERAGE PER UNIT	PER CENT CHANGE		
1979	5,685	MAN .	2,076		3,623			
1980	5,658	-0.5	2,060	-0.8	3,631	+0.2		
1981	5,620	-0.7	2,080	+1.0	3,567	-1.8		
1982	5,498	-2.2	2,103	+1.1	3,419	-4.1		
1983	5,380	-2.1	2,119	+0.8	3,265	-4.5		
1984	5,584	+3.8	2,264	+6.8	3,322	+1.7		
1985	5,592	+0.1	2,344	+3.5	3,252	-2.1		
1986	5,545	-0.8	2,450	+4.5	3,098	-4.7		

SOURCE: Administrative Expense Data Base, Program Evaluation

Division, CMHC, 1988.

NOTE: Project level operating data for Newfoundland and the Northwest Territories not included for 1986.

Strictly comparing expenditures in 1986 to those recorded for 1979 yields the following observations. Average expenditures per unit declined in six of the seven budget categories: project operations (-20.0 per cent), amortization (-16.0 per cent), maintenance (-11.9 per cent), taxes (-4.6 per cent), administration (-5.3 per cent) and utilities (-1.5 per cent) (Table 33). Modernization and improvements was the only budget category which recorded increased expenditures per unit in real terms (+153.0 per cent).

The evaluation also examined the variation in operating costs across different components of the portfolio to determine which components of the portfolio are more expensive to operate. In order to avoid the influence of unusually high expenditures in any given year, costs were averaged over the

TABLE 33
AVERAGE ANNUAL OPERATING EXPENDITURES PER UNIT, 1979-1986
CONSTANT \$1986

BUDGET CATEGORIES	1979	1980	1981	1982	1983	1984	1985	1986
Taxes	818	795	775	763	725	751	756	780
Utilities	732	762	800	801	790	826	799	721
Operating	993	980	950	923	676	717	746	794
Maintenance	464	537	348	404	375	402	418	409
M&I	181	131	391	249	287	339	396	458
Amortization	2,474	2,451	2,358	2,251	2,282	2,310	2,205	2,078
Administration	339	339	342	345	309	310	319	321

SOURCE: Administrative Expense Data Base, Program Evaluation

Division, CMHC, 1988.

NOTE: Project level operating data for Newfoundland and the

Northwest Territories not included for 1986.

eight year period spanning 1979-86. Expenditures for the years 1979-85 were first inflated to 1986 values, using the housing component of the Consumer Price Index. Subsequent to this, an average of the annual expenditures recorded between 1979 and 1986 was calculated (Table 34).

A comparison of public housing operating costs among provinces and territories reveals that average annual expenditures per unit were highest in Northwest Territories (\$16,168), followed by Yukon (\$8,949), Newfoundland (\$6,763) and Alberta (\$6,452). Average expenditures per unit were lowest in Manitoba (\$4 930), Saskatchewan (\$4,977), Nova Scotia (\$5,228) and Quebec (\$5,293). Average expenditures in the remaining provinces and territories ranged from \$5,349 to \$5,885 per unit.

A variety of factors contribute to provincial and territorial variations in operating expenditures per unit. Differences in accessibility influence the costs of key inputs to both the construction and operation of the portfolio, whether they be construction materials, labour, or fuel, electricity and water. Differences in climate affect the consumption of fuel and electricity to heat and operate public housing projects. The approach to portfolio management also differs by province and territory. Provincial and territorial policies may also indirectly influence trends in operating expenditures. For example, an emphasis on housing seniors as opposed to families may result in lower overall operating costs per unit in provincial or territorial portfolios.

TABLE 34
AVERAGE ANNUAL EXPENDITURES, REVENUES AND
OPERATING LOSSES PER UNIT, 1979-1986
(MEASURED IN \$1986)

PROJECT CHARACTERISTICS	EXPENDITURES PER UNIT	REVENUES PER UNIT	LOSSES PER UNIT
PROGRAM			
Section 79	5,378	2,259	3,183
Section 81/82	5,608	2,174	3,435
PROVINCE/TERRITORY			
Newfoundland	6,763	1,668	5,098
Prince Edward Island	5,852	2,074	3,806
Nova Scotia	5,228	2,070	3,166
New Brunswick	5,885	2,039	3,845
Quebec	5,293	2,056	3,238
Ontario	5,481	2,188	3,293
Manitoba	4,930	2,272	2,659
Saskatchewan	4,977	1,929	3,088
Alberta	6,452	2,276	4,176
British Columbia	5,349	3,391	2,174
Yukon	8,949	3,140	5,808
Northwest Territories	16,168	1,549	14,620
CLIENT			
Family	6,448	2,341	4,113
Senior	4,822	2,027	2,804
Family & Senior	5,185	2,365	2,883
PROJECT AGE			
Pre - 1964	5,311	2,391	2,990
1964 - 1969	5,875	2,399	3,493
1970 - 1974	4,905	2,161	2,754
1975 - 1979	5,768	2,138	3,633
1980 - 1987	7,544	2,078	5,485
BUILDING TYPE			
Detached, Semi & Row	6,492	2,303	4,203
Low rise	5,079	2,050	3,038
High rise	5,079	2,091	2,994
Mixed (no high rise)	5,721	2,476	3,313
Mixed (with high rise)	6,042	2,346	3,710
ALL	5,567	2,190	3,389

SOURCE: Administrative Expense Data Base, Program

Evaluation Division, CMHC, 1988.

NOTE: Average annual expenditures, revenues and operating

losses per unit for the 1979-86 period are reported

in 1986 dollars.

In addition to the influence exerted by differences in the cost of key inputs (e.g. materials, labour, utilities) and approaches to portfolio management, provincial and territorial variations in operating expenditures are also strongly influenced by underlying differences in the characteristics of their respective public housing portfolios. In particular, the age of the portfolio and the nature of the clients served strongly influence the cost of operating public housing projects.

Family projects are more costly to operate than seniors projects. Total operating expenditures per unit were 36 per cent higher for family projects than for seniors projects. These differences were most marked in the case of maintenance (+143 per cent) and modernization and improvements (+144 per cent). Part of the difference in operating costs per unit between family and seniors projects is likely due to the difference in unit sizes.

The cost of operating public housing projects also varies according to the age of the project. In terms of total expenditures, the newest projects are the most expensive to operate. This is due to the higher amortization costs incurred among this component of the portfolio. Per unit expenditures on maintenance, modernization and improvements and project operations all increase with the age of the project.

Among building types, the highest expenditures per unit are exhibited by projects consisting of detached, semi-detached, and row structures. Apartment projects are less costly to operate in every budget category with the exception of taxes and project operations (in the case of high-rise projects) and amortization (in the case of low-rise projects). Projects containing a mixture of building types recorded slightly higher than average expenditures per unit. Per unit expenditures on amortization, utilities and maintenance decline with increasing project size. In contrast, expenditures on taxes, operations and modernization and improvements all increase with project size.

As was the case with projects consisting of detached, semi-detached and row units and those with under 10 units, public housing projects located in rural areas also manifested higher than average operating expenditures per unit. The commonality among the factors contributing to high overall expenditures among these projects is not surprising, given the considerable similarities among the projects themselves. In fact, 83.1 per cent of all projects with under 10 units and 53.5 per cent of all projects in rural areas are composed of detached, semi-detached and row structures.

VII KEY FINDINGS AND IMPLICATIONS FOR PUBLIC HOUSING IN CANADA

This chapter summarizes the main findings and conclusions of the evaluation, assesses the implications for public housing in Canada and identifies a variety of actions that could enhance the management of the program in the future. The chapter is organized into four sections which cover the characteristics of the stock and the characteristics of public housing clients; the physical condition of the stock; the quality of life in public housing; and, the management of the Public Housing Program.

The first section on the characteristics of the stock and the characteristics of public housing clients provides background information on the program. Subsequent sections specifically address the objectives of the Public Housing Program:

OBJECTIVE	SECTION
"adequate housing/ decent/safe housing"	o the physical condition of the stock
"decent/safe housing"	o the quality of life in public housing
"provide accommodation which most effectively integrates public housing occupants into the community"	
"efficient and effective manner"	o the management of the program
"reasonable costs to the government involved"	·
"individuals and families of low income	
"within their financial capabilities at rents they can afford"	

CHARACTERISTICS OF THE STOCK

The public housing portfolio is diverse in character.

Public housing has been developed in every Canadian province and territory and in communities of all sizes, including rural areas. Projects are comprised of a variety of building types, ranging from single family detached homes to large high-rise buildings. Individual projects range in size from 1 to 1,395 units.

Most public housing units are less than twenty years old.

Although federal financial assistance for the development and operation of public housing projects has been available for almost forty years, the majority of the stock is of considerably more recent origin. Fully 87.2 per cent of all public housing units are less than twenty years old.

The Public Housing Program serves two distinct client groups (families and senior citizens) which differ greatly in their characteristics and their needs.

Single parent families account for one-half of all households residing in family projects. Over half (57.9 per cent) of residents of family public housing projects are under the age of 25; 37.5 per cent are children under the age of 15. Just over one-third of family clients are employed. Provincial or municipal social assistance is the major source of income for one-half of family clients.

Over four-fifths of all residents of seniors projects are aged 65 years or older; 34.1 per cent are at least 75 years of age. One-fifth of seniors households have one or more members who are disabled or infirm. Almost all seniors clients are single person households (85.4 per cent) and are retired or are unable to work due to disability (92.3 per cent). Approximately 60 per cent of seniors clients rely on Old Age Security and the Guaranteed Income Supplement as their principal source of income.

Roughly equal numbers of family and seniors households are served by the Public Housing Program. Overall, only one-quarter of all clients are in the labour force (either employed or unemployed but looking for work). Average household incomes for public housing residents were \$10,632 in 1988, only 40 per cent of the average income of renter households in general.

The diversity of the stock (in terms of location, project size, building type and project age) and the characteristics of public housing clients, pose a range of management challenges for preserving the stock and responding to client needs in a cost-effective and efficient manner.

PHYSICAL CONDITION OF THE STOCK

For the first time, the 1988 Physical Condition Survey provides a detailed, accurate and comprehensive assessment of the condition of Canada's public housing stock.

The public housing stock is in good condition overall.

Whether using units, buildings, sites or projects as the unit of analysis, at least 94 per cent of the total portfolio meets or exceeds Minimum Property Standards. Although the stock is generally in good condition, it is estimated that 169 projects (3.5 per cent), 1,400 buildings (6.0 per cent) and 8,200 units (4.0 per cent) fail to meet Minimum Property Standards. In addition, more than half of all projects only minimally meet Minimum Property Standards and are at risk of falling below the standards.

Although the public housing stock is in good condition overall, repair and replacement actions valued at \$350 million are required.

As part of the Physical Condition Survey, CMHC inspectors recommended repair and replacement actions valued at an estimated \$350 million for the public housing portfolio nationwide. In most cases, repair and replacement costs are fairly modest. Over one-third of all projects (37.8 per cent) require actions costing less than \$5,000, while almost one-half (47.6 per cent) require less than \$10,000.

Measured on a per unit basis, the average repair cost is \$1,693. Almost half of all projects (47.0 per cent) required repair and replacement costs of less than \$500 per unit.

A minority of projects in very poor condition require the majority of repair and replacement costs

Measured on a cost per project basis, the 2.8 per cent of projects (containing 15.4 per cent of all units) which require \$500,000 or more for repairs and replacements account for over half of all repair and replacement costs.

Measured on a cost per unit basis, the 6.9 per cent of projects (containing 7.5 per cent of all units) which require \$5,000 or more per unit for repairs and replacements account for 44 per cent of all repair and replacement costs.

Physical condition is not uniform across all components of the portfolio.

Generally speaking, projects committed prior to 1970, those serving family clients and those containing a mixture of building types are in the poorest condition.

Costs of additions and upgrades to the public housing stock are estimated at \$133 million.

As part of the Physical Condition Survey, CMHC inspectors collected information on the need for additions and upgrades to the public housing stock in the areas of fire safety, lighting, ventilation, energy efficiency and durability/maintenance. These additions and upgrades are either necessary to meet current code requirements or would result in major cost savings.

There exists a backlog in funding of needed repairs, replacements, additions and upgrades in the public housing stock.

Assuming that the 1988 maintenance and M&I budgets for the program, totalling \$274 million, are appropriately allocated to public housing projects according to levels of need, a funding backlog in the order of \$209 million exists.

The level of the estimated backlog should be treated with caution

It is difficult with the data available to establish whether the backlog has increased or decreased in recent years. Increased attention on the preservation of the existing stock and increasing maintenance and modernization and improvement expenditures through the 1980's, suggest that the level of the backlog could be decreasing.

A continued increase in maintenance and M&I levels in future years could accommodate the annual accrual of "new" repairs, replacements, additions and upgrades as well as the backlog identified.

Under the assumption that increasing maintenance and M&I expenditures have helped diminish the level of the backlog in recent years, a continued increase in maintenance and M&I levels could help decrease the level of the backlog. This observation should be tempered by the fact that the level of "new" annual accrual of need is likely to increase with the aging of the stock.

There is evidence that projects which are in the worst condition have not received their fair share of maintenance and M&I funding.

Projects failing the NHA Minimum Property Standards had the highest incidence of postponement of maintenance because of a lack of budget. Furthermore, projects which require \$5,000 or more per unit for repairs and replacements had the highest incidence of postponed maintenance and M&I because of a lack of budget.

Maintenance activities appear to have been increased in some projects to make up for a shortage of M&I expenditures.

Although the level of postponed maintenance because of lack of budget decreases in projects where more funds are available for maintenance, the incidence of postponed M&I because of lack of budget increases steadily as maintenance expenditures per unit increase.

The change in the age profile of the public housing stock over the next fifteen years will have an impact on project condition

In 1988, the average age of the stock was 14 years. By the year 2003, all 4,801 projects will be older than 15 years and over 60 per cent of projects will be over 25 years old. Given the present condition profile of the stock, the aging of the portfolio will have a negative impact on its physical condition.

The potential for increased deterioration of the stock presents an opportunity to improve the management of physical condition. Specifically, the focus should not be just on those projects which currently exhibit major repair and replacement requirements, but it should also be on preventing other parts of the portfolio from deteriorating to a similar condition. In particular, projects which only minimally meet Minimum Property Standards and are at risk of falling below the standards should be targeted for attention.

Periodic monitoring of the overall condition of the public housing portfolio should be instituted. This should become a normal component of enhanced portfolio management practices and would enable a better allocation of maintenance and M&I resources. Periodic monitoring of condition would also provide time-series data which are needed to indicate clearly whether the condition of the stock is improving or deteriorating.

There is a need for redesign and redevelopment (modification/regeneration) of a small portion of the public housing portfolio.

The evaluation estimated that up to 500 projects which either fail or just meet NHA Minimum Property Standards (10.5 per cent of the portfolio) were candidates for some form of redesign and redevelopment. Among this group, about 57 projects (1.2 per cent of the total portfolio) do not meet NHA Minimum Property Standards for Existing Residential Buildings. Although regeneration activities are not necessarily restricted to projects in poor condition, regeneration efforts to this date have been in projects which were in poor physical

condition. These 57 projects are therefore the most likely candidates for redesign and redevelopment and constitute a lower-bound estimate.

Although estimating redesign and redevelopment costs is difficult, the evaluation provides a lower-bound estimate of \$133 million (for 57 projects), and an upper-bound estimate of \$289 million (for 500 projects). These estimates recognize that redesign and redevelopment needs are more serious in projects which fail the NHA Minimum Property Standards.

The level of time and staff resources necessary in previous regeneration efforts indicate that any future regeneration efforts would have to be phased over several years. The cost estimates for redesign and redevelopment are therefore not included in the estimate of the backlog of repairs and replacements, additions and upgrades.

A separate modification (regeneration) initiative should be established to address the needs of projects which are beyond normal maintenance and M&I.

At present, there is little data for identifying the individual projects which are candidates for modification at the national level.

The identification and monitoring of potential candidate projects for modification (regeneration) should be an integral part of the periodic review and monitoring of the overall condition of the public housing portfolio.

The case studies illustrated that public housing projects which are candidates for modification often experience complex physical and/or social problems.

A modification (regeneration) program should involve sound planning and a multi-disciplinary team of experts to investigate all the evident problems within the projects and all the solutions that might apply, without a predisposition to recommending physical changes. The use of experts with experience in previous modification projects would also ensure that lessons learned are transferable.

Tenant support and involvement is critical to successful modification (regeneration) of public housing projects.

Both the case studies and past regeneration efforts indicate that any major physical modification to a project or its social environment would be hard to achieve without tenant support. Tenants living in an environment where they are alienated may resist supporting or co-operating with a redesign or redevelopment team.

Active participation of the tenants and other government bodies serving the tenant population is essential to the achievement of modification (regeneration) goals.

QUALITY OF LIFE IN PUBLIC HOUSING

Clients have improved their living conditions as a result of the move to their current public housing unit.

Most public housing residents had previously been housed in either the private rental market (45.0 per cent) or the private ownership market (23.3 per cent). Approximately one-fifth of tenants moved to their current unit from a different public housing project or another unit in the same project. High rental costs (57.1 per cent), inadequate dwelling size (44.4 per cent) and poor dwelling condition (35.4 per cent) were the most commonly reported reasons for moving to public housing. Over 60 per cent of clients were housed within six months of application, while 78 per cent were housed within one year of application.

In comparing their current housing unit to the one they occupied previously, the majority of respondents cited improvements in rental costs (67.1 per cent), dwelling size (64.3 per cent), state of repair (56.6 per cent) and privacy/independence (53.0 per cent). These are the areas which most closely conform to formal program objectives (affordable, suitable and adequate housing). The Public Housing Program has also been successful in terms of providing housing which maintains or improves access to facilities and services and to clients' established social networks (friends and family).

While the Public Housing Program has been successful in improving the housing conditions of its clients, it has been less successful in providing safe environments.

When comparing their current dwelling to the one they occupied previously, almost one-quarter of survey respondents reported worse conditions with respect to crime and vandalism, only slightly less than the proportion citing improvements (30.9 per cent). Among family projects, a greater proportion cited worse crime and vandalism conditions (35.6 per cent) than did improvements (21.6 per cent).

Public housing clients are satisfied with their homes.

87.3 per cent of public housing residents expressed overall satisfaction with their home, compared to 76.8 per cent recorded by a survey of renter households in general.

Public housing tenants expressed some dissatisfaction over the way projects are run (19.4 per cent). When individual aspects of project management are examined, security emerges as a major concern, with 26.2 per cent of clients dissatisfied. Dissatisfaction with project security was particularly prevalent among residents of family projects (41.9 per cent). Clients also expressed a similar degree of dissatisfaction with the speed with which their requests were addressed by project staff (25.2 per cent dissatisfied overall; 38.2 per cent dissatisfied in family projects).

Crime is viewed by residents to be a significant problem in family public housing projects.

Property related crimes (e.g. vandalism and property theft) are the most pervasive problems. Vandalism and drug dealing were each reported to be major problems by just over one-third of family clients. Property theft and assault were reported to be major problems by one-quarter and one-fifth of family clients, respectively. While the majority of projects do not appear to have major problems with drug dealing, the case studies underscore the severe social stress that projects undergo when drug trafficking becomes firmly established. In complete contrast, major problems with crime reported by residents of senior citizen projects were very isolated.

The emergence of security as a major concern of tenants is a reflection of the problems with crime in family public housing projects. The overall security and safety of residents are threatened in a portion of the family public housing portfolio, to the detriment of the young families and youth who reside in them. Resolving problems of security deserve as much attention as issues related to the condition of the stock.

Problems with crime do not appear to be a feature of public housing per se, but rather are reflective of the dynamics of crime prevailing in the community at large (e.g. related to low-incomes, large cities, etc.).

The incidence of major problems with vandalism in family public housing projects (as revealed in residents' perceptions) were generally similar to those recorded by renters and low-income households in general with respect to their areas of residence. However, the incidence of major problems with property theft, assault and drug dealing reported by family clients were lower than those recorded among renters and low-income households generally. Major problems with crime reported by residents of senior citizen projects were much lower than those reported by senior citizens in the population at large.

MANAGEMENT OF PUBLIC HOUSING

Responsibilities for the day-to-day management of the portfolio are highly decentralized.

While the day-to-day management of the public housing portfolio is the responsibility of Provincial and Territorial housing agencies, in most cases these duties have been delegated to Local Housing Authorities. In provinces which retain these responsibilities, the activities are often performed through regional offices. Nationally, there are approximately 1,100 Local Housing Authorities, private organizations and provincial or territorial offices which perform this function. The portfolios managed by individual management groups range in size from 2 units to 29,151 units. If the number of local public housing management groups is any indication, operational management is most decentralized in Quebec, Alberta and Saskatchewan.

Provincial and territorial property management programs have evolved differently. Provincial and territorial support for project level management can be improved in certain areas.

The differences in provincial and territorial management are associated with characteristics such as portfolio size, centralized or decentralized management, dominant client type and portfolio age.

Several provinces and territories did not have adequate management control in the six areas selected as key indicators of management performance. Three of these areas, accreditation and training of project managers, the management of unit condition and management planning, were found to be strongly related to the physical condition of the public housing stock.

However, the emergence of the preservation of the public housing stock as a high priority seems to have resulted in increased attention to strengthening provincial and territorial support for project level management.

Since day-to-day administration of the portfolio rests with the provinces and territories, CMHC has not played an active role in the management of the stock.

Federal objectives for the program, originally developed for the delivery of new units, do not reflect the current project and property management thrust of the program. Similarly, federal guidelines and procedures for a property management program do not exist. Some guidelines to control expenditures, such as maximum financial exposure for maintenance and M&I, do exist. Prior to the evaluation, information to assist in the monitoring and management of the program was only available in manual form.

CMHC should play a more active role in the management of the stock by guiding the evolution of the program and by monitoring its performance.

Federal Public Housing Program objectives should be updated to reflect the property management orientation of the program. In addition, previous activity-oriented objectives should be replaced with results-oriented objectives.

Performance measures should be developed to establish program goals and monitoring standards to allow all parties to assess risks and management effectiveness.

Cost control mechanisms appropriate for an aging portfolio should be developed (Modernization and Improvement Authorities were reviewed by CMHC in 1989).

Monitoring requires the availability of automated (current and time series) information. These data would include basic characteristics of the stock and tenants, and administrative expenditure patterns. A second level of information would include the monitoring of physical condition and of the management and social environments.

Projects requiring the greatest attention or in the greatest need do not appear to receive the greatest attention.

A range of indicators throughout the evaluation have documented the fact that projects identified as being in greater need (e.g. older projects, family projects) have received less attention in relative terms.

The percentage of projects with postponed maintenance (where budget was a problem) was highest in the older projects, in family projects, and in projects that failed the physical condition survey.

The majority of project managers are responsible for portfolios of less than 100 public and social housing units. However, managers of older family projects, which had a higher incidence of poor condition, are responsible for larger portfolios.

The level of staff resources per 100 units was also lower for older projects, larger projects as well as projects with high-rise buildings or a mix of building types. Although economies of scale may be associated with larger high-rise projects, it is questionable whether the savings are sufficiently large to account for their having lower staffing levels than for smaller projects or projects composed of detached, semi-detached or row housing.

Within a given budget and recognizing that each project requires a certain annual investment, maintenance and M&I budgets should be allocated according to need in property management programs with those projects and units in greatest need receiving a share of the budget in proportion to that need.

Project managers have a high degree of experience.

Project managers have considerable experience with an average of over six years as project manager, and most managers emerge through the program. Only one-tenth of managers are Certified Property Managers (CPM) or have received other designation or accreditation. Ontario, Manitoba, Saskatchewan and British Columbia account for almost all accredited managers.

Not all project managers can accurately assess the physical condition of their projects.

When project manager and inspector ratings of project condition are matched and compared, 37 per cent of project managers give their project a higher rating than the inspector, 52 per cent give it the same rating and 11 per cent give their project a lower rating than the inspector.

Project managers could benefit from additional training in property management. Project managers could particularly benefit from further training in the area of standards of condition and the assessment of the physical condition of projects.

There is some form of tenant involvement in most public housing projects but it is not formalized through tenant committees

Only a minority of projects, 13.7 per cent, have no form of tenant involvement at all. The majority of public housing projects have some form of tenant involvement in the maintenance of grounds and common areas, social or recreational programs, protection against vandalism and project security. Tenant involvement in office support and budgeting is much lower with only 10 per cent of projects reporting some form of involvement in this area.

Although meetings between project staff and tenants occur in almost 40 per cent of projects, meetings between project staff and formal tenant committees occur in only 15.9 per cent of projects. This indicates that, although some form of tenant involvement exists in the majority of projects, this involvement is not usually organized through a tenant committee structure. Meetings are more common in seniors projects and in larger public housing projects.

Project managers are open to advice from tenants and to the formation of tenant committees. The support of project managers for direct tenant involvement in the management of projects is much lower.

Managers in 75 per cent of projects agreed they should pay close attention to the advice of individual tenants. Furthermore, managers in over 60 per cent of projects agreed that tenant organizations should exist to provide advice and suggestions to the project management team.

Managers in close to half of public housing projects agreed that tenants should have no role in the management of their project. The opposition of project managers is greater when major tenant involvement is considered. Managers in almost 80 per cent of projects disagreed with the statement that tenants should play a major role in the management of their project.

Project management provides support for tenant meetings in just over one-quarter of public housing projects

Support (i.e. meeting spaces, materials) for tenant meetings is provided by management in over one-quarter of public housing projects, including over half of all public housing units. Support for tenant meetings is more common in seniors projects and in larger public housing projects.

Meeting rooms are available and satisfactory in approximately half of public housing projects.

Project managers assessed that meeting rooms were satisfactory in just over half of public housing projects, including almost 70 per cent of all public housing units. Meeting rooms are not satisfactory in 7.0 per cent of projects, including 8.8 per cent of all units, or simply not available in 38.7 per cent of projects, including 21.5 per cent of units. Meeting rooms are more available in seniors projects and in larger projects.

Tenants are generally satisfied with the way their projects are run.

More than 80 per cent of tenants are satisfied with the way their project is run overall. However, tenants are less satisfied with some aspects of project management than others. In particular, tenants expressed their greatest dissatisfaction with the performance of management with regard to security and the speed with which requests are handled. Families were less satisfied with project management than were seniors.

Tenant satisfaction does not vary by their level of involvement, but tenants want a greater role in the running of their project.

No causal relationship can be established between level of involvement and satisfaction with project management as it remains unclear whether tenant dissatisfaction with project management leads to involvement.

Irrespective of their current level of involvement, approximately one-third of tenants are in favour of greater tenant involvement in the management of their project. The majority of decided tenants want more involvement, but over one-third of surveyed tenants did not express an opinion.

The feasibility of promoting greater tenant input and involvement in the management of public housing projects should be further explored. At the same time, support and training should be provided for project managers to deal with the resulting changes in the management environment of public housing.

Not all public housing units are utilized.

Over 6 per cent of units were vacant for one month or more during the year preceding the survey. This represents a lost capacity of over 1,000 units per annum. The most common reasons for long-term vacancies were lack of need, physical condition and unit suitability. Vacancy rates were higher in rural areas, where underutilization is predominantly characterized by low need for public housing units. Projects with unsatisfactory facilities and services and those located near derelict or dangerous buildings had higher than average vacancy rates.

The underutilization of projects, particularly in rural areas, indicates the importance of accurately assessing the need and demand for social housing units. Need and demand analyses for new social housing delivery and existing projects should be strengthened, including the monitoring of vacancy rates in existing projects.

Concerning vacancies associated with tenant turnover, almost 77 per cent of units were ready for occupancy within 14 days of tenant departure.

Tenant turnover has been handled very effectively in most projects, resulting in a low loss of occupancy months to the portfolio; however, there is still a portion of the portfolio where tenant turnover procedures could improve.

The physical conversion of units is costly.

Conversions were found to be a costly solution to the problem of under-utilized stock. Conversions could also result in a net decrease in the total number of units because many requested conversions are from small to larger units. Although units identified for conversion are considered to be less desirable by tenants, vacancy rates for these units are still low and units are generally in good condition. Based on case study analyses, the estimated cost of conversion from a bachelor to a one bedroom unit is about \$20,000.

Non-physical options such as a change in client (e.g. non-elderly singles in bachelor units) or a change in use (e.g. nursing facility in bachelor unit) should be considered prior to physical conversion.

Total expenditures under the program in 1986 exceeded \$1 billion.

Total expenditures under the program in 1986 exceeded \$1 billion (\$5,545 per unit). Revenues of almost \$500 million (\$2,450 per unit) resulted in operating losses of about \$600 million (\$3,098 per unit) in 1986. The CMHC share of this operating loss was \$329 million (\$1,698 per unit).

Only a small portion of current program expenditures are for repairing and upgrading the stock. Amortization and taxes currently consume approximately one-half of total annual expenditures on the portfolio.

Over 37 per cent of total expenditures are for amortization (\$2,078 per unit). Taxes (\$780 per unit), utilities (\$721 per unit) and administration (\$321 per unit) consume an additional 33 per cent of all expenditures leaving less than one-third of total expenditures for operations (\$794 per unit), maintenance (\$409 per unit) and M&I (\$458 per unit).

As mortgages reach the end of their amortization term, the proportion of project budgets consumed by principal and interest payments will decline. The impact of mortgage termination will not begin to be felt for 20 to 30 years, however.

As individual mortgages reach the end of their amortization period and are paid in full, the proportion of total operating expenditures required for amortization will begin to decline. The majority of amortization terms were set at 50 years in duration. Consequently, the impact of mortgage termination will not begin to be felt with any magnitude for 20 to 30 years. Mortgages for approximately 12 per cent of all projects will be paid in full by the year 2019; mortgages for two-thirds of all projects will be paid in full by the year 2029.

The Public Housing Program is well targeted to low-income households.

The program is well targeted to low-income households, with 96.1 per cent of clients reporting household incomes below the appropriate "core need income threshold" for the area in which they live.

Although the program is well targeted, just under 40 per cent of public housing tenants continue to be in core need.

Despite the assistance provided through the Public Housing Program, 39.9 per cent of households surveyed remain in core need. Approximately two-thirds of those identified as being in core need are experiencing affordability problems only (i.e. shelter costs equal to or greater than 30 per cent of their income). A further 12.1 per cent of clients occupy units which are affordable and suitable, but are in need of major repairs, while 4.5 per cent have only suitability problems. Approximately one-fifth have multiple problems. The incidence of public housing residents in core need was highest in British Columbia (71.8 per cent) and New Brunswick (68.9 per cent).

A review of the various rent scales currently in use and the manner in which they are implemented is warranted, given the incidence of affordability problems detected.

Fundamental differences exist between projects which house families and those which house senior citizens.

Significant differences exist between family and seniors projects with respect to client characteristics, the physical condition of the stock, client satisfaction and quality of life, project management and operating costs.

From a program planning, budgeting and monitoring perspective, it is inappropriate to treat the Public Housing Program as "one" program. The senior citizen public housing portfolio should be treated as a component distinct from the family public housing portfolio.