CASE STUDY
PROTECTING THE FAMILY

KNOWLEDGE EXPECTED OF: Both FPSC Level 1® Certificants and CFP® Professionals

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Pat, age 33, and Leslie, age 35, are married and have two children, ages five and seven. Pat works for the local township earning $85,000 per year ($57,790 after taxes and deductions toward the Canada Pension Plan and Employment Insurance). After staying home for a number of years to care for the children, Leslie is scheduled to return to work part-time. She expects to earn $40,000 in gross annual salary, which amounts to $29,841 after taxes, CPP and EI deductions. They estimate that annual child care expenses will increase by about $5,000 per child, for after-school programs, summer camps and extra-curricular activities, until each child turns 14. Pat and Leslie are in good health, but there is a history of breast cancer in Leslie's family.

Pat's employee benefits include the following: life insurance in the amount of two annual salaries; 80 percent of prescription drug coverage; 80 percent of dental care coverage of up to $5,000 per year; short-term disability coverage equaling three-quarters of gross salary (non-taxable) for the first 110 days, following a waiting period of 10 days; and long-term "any occupation" disability coverage equaling two-thirds of his gross salary (non-taxable), payable after 120 days, until age 65. The benefits keep pace with changes to the consumer price index. Pat wants to ensure that his family is protected, should he become disabled and unable to work. Leslie's part-time employment makes her ineligible for benefits.

The family lives in a condominium whose value is estimated at $650,000, with an outstanding mortgage of $275,000. Their mortgage and condominium payments are $1,700 and $300 per month, respectively (including creditor insurance), with a remaining amortization of just under 20 years. Annual property taxes are $4,000. They also have a $16,000 car loan with annual payments of $4,800, and a remaining term of three and a half years. They spend $6,000 per year on car insurance, fuel and maintenance for their car, and Leslie expects to pay $2,400 annually for public transit once she returns to work. Their lifestyle expenses amount to $15,000 per year. Currently, the couple contributes $2,500 annually to a Registered Education Savings Plan (RESP) for each child, and are on track to meeting their goal of helping finance their children's education when the children turn 18.

The couple has $2,000 in their chequing account and $35,000 in a family RESP, of which $20,000 is allocated for the seven-year old, and $15,000 for the five-year old. They also have $6,700 in a spousal Registered Retirement Savings Plan (RRSP) in Leslie's name. Jane, an FPSC Level 1 Certificant in Financial Planning, has advised Pat to begin contributing $400 to the spousal plan per month to help meet their retirement goal. The couple lives within their means, and pays their credit cards in full each month.

Pat and Leslie would like to ensure that they can maintain their current lifestyle until age 65, and remain in the family home without having to return to work if either of them should die prematurely. Survivor expenses are estimated at 90 percent of their current lifestyle expenses. They also want to ensure that they can provide for their children's post-secondary education. They expect that a four-year program will cost $10,000 per year in today's dollars, with education costs rising by an annual five percent. In addition, they would like to continue to save for their retirement until age 65, and ensure they have enough insurance to leave each child $100,000 upon the death of the surviving spouse.

They estimate that $20,000 will be needed for funeral expenses, and $25,000 for emergencies. If Pat were to die, Leslie would need to increase her RRSP contributions to $1,000 per month to meet her retirement goal. Based on the couple's risk tolerance, they prefer to maintain an investment portfolio equally balanced between equities and fixed income. Investment-related expenses are estimated at an annual 1.6 percent (two percent for equity mutual funds, and 1.2 percent for fixed-income mutual funds). Any tax liability upon death will be paid from their estate.

Knowledge Expectations – Insurance Needs

The FPSC Level 1 Certificant in Financial Planning and CFP Professional should be able to:

- Construct a net worth statement for the couple.

Personal Net Worth
for Leslie and Pat

	Leslie	Pat	Joint	Total
Condo	$-	$-	$650,000	$650,000
Total Lifestyle Assets	**$-**	**$-**	**$650,000**	**$650,000**
Chequing account	$-	$-	$2,000	$2,000
Spousal Registered Retirement Savings Plan (RRSP)	$6,700	$-	$-	$6,700
Registered Education Savings Plan (RESP)	$-	$-	$35,000	$35,000
Total Investable Assets	**$6,700**	**$-**	**$37,000**	**$43,700**
Total Assets	**$6,700**	**$-**	**$687,000**	**$693,700**
Car loan		$-	$16,000	$16,000
Total Short Term Liabilities	**$-**	**$-**	**$16,000**	**$16,000**
Mortgage	$-	$-	$275,000	$275,000
Total Long Term Liabilities	**$-**	**$-**	**$275,000**	**$275,000**
Total Liabilities	**$-**	**$-**	**$291,000**	**$291,000**
Net Worth	**$6,700**	**$-**	**$396,000**	**$402,700**

- Explain that the couple has a positive net worth of $402,700, but that they have no emergency funds.

- Construct a projected cash flow statement for the couple.

Projected Cash Flow
For Leslie and Pat

	Monthly	Annual
Gross income for Leslie	$3,333.33	$40,000.00
Taxes, CPP and EI premiums	-$846.58	-$10,159.00
Net Income	**$2,486.75**	**$29,841.00**
Gross income for Pat	$7,083.33	$85,000.00
Taxes, CPP and EI premiums	-$2,267.50	-$27,210.00
Net Income	**$4,815.83**	**$57,790.00**
Total Cash Inflows	**$7,302.58**	**$87,631.00**
Mortgage	$1,700.00	$20,400.00
Car loan	$400.00	$4,800.00
Total Debt Payments	**$2,100.00**	**$25,200.00**
Property taxes	$333.00	$3,996.00
Condo fees	$300.00	$3,600.00
Other household expenses	$1,250.00	$15,000.00
Total Housing Expenses	**$1,883.00**	**$22,596.00**
Car	$500.00	$6,000.00
Transit	$200.00	$2,400.00
Total Transportation Costs	**$700.00**	**$8,400.00**
Childcare	$833.00	$9,996.00
Total Childcare Costs	**$833.00**	**$9,996.00**
Registered Retirement Savings Plan (RRSP)	$400.00	$4,800.00
Registered Education Savings Plan (RESP)*	$417.00	$5,004.00
Total Savings Contributions	**$817.00**	**$9,804.00**
Total Outflows	**$6,333.00**	**$75,996.00**
Net Cashflow	**$969.58**	**$11,635.00**

- Explain that the couple is expected to have a positive cash flow of about $970 per month once Leslie returns to work.
- Estimate the financial needs of the family if Pat or Leslie should predecease one another, or die concurrently.

Life Insurance Needs Analysis
Leslie and Pat

	If Leslie Dies	If Pat Dies
Needs After Death		
Mortgage	$275,000	$275,000
Car loan	$16,000	$16,000
Other cash needs (Emergency fund)	$25,000	$25,000
Final expenses (Funeral)	$20,000	$20,000
Immediate Needs	**$336,000**	**$336,000**
Monthly expenses[1]	$688,295	$688,295
Child-related expenses until age 14 for child #1[2]	$32,991	$32,991
Child-related expenses until age 18 for child #2[3]	$41,803	$41,803
On-Going Needs	**$763,089**	**$763,089**
Education needs for child #1[4]	$21,541	$21,541
Education needs for child #2[5]	$27,752	$27,752
Retirement needs for surviving spouse[6]	$97,364	$241,706
Bequest to children	$200,000	$200,000
Goals	**$346,657**	**$490,999**
Total Insurance Needs if Surviving Spouse No Longer Works	**$1,445,746**	**$1,590,088**
Insurance Available		
Creditor protection for debts	$275,000	$275,000
Group insurance coverage		$170,000
Personal insurance coverage	$-	$-
Insurance Available	**$275,000**	**$445,000**
Total Insurance Available	**$275,000**	**$445,000**
Surplus/Shortfall	**-$1,170,746**	**-$1,145,088**

[1] Monthly expenses that remain if either Pay or Leslie die:
Property taxes + condo fees + 0.90(lifestyle expenses) + car = $2,258
Insurance required for monthly expenses if Pat dies:
N = 32 X 12 = 384; I/Y = 3.5% - 2.0% = 1.5%; PMT = $2,258; FV = $0. CPT PV = $688,295

[2] Child care expenses for child #1 = $5,000 annually. Insurance required to cover child care expenses for child #1:
N = 7; I/Y = 3.5% - 2.0% = 1.5%; PMT = $5,000; FV = $0. CPT PV = $32,991

[3] Child care expenses for child #2 = $5,000 annually. Insurance required to cover child care expenses for child #2:
N = 9; I/Y = 3.5% - 2.0% = 1.5%; PMT = $5,000; FV = $0. CPT PV = $41,803

[4] Education needs for child #1:
Cost of one year of education in 11 years: N = 11; I/Y = 5%; PV = $10,000; PMT = $0. CPT FV = $17,104
Required cash on hand in 11 years: N = 4; I/Y = 5%; PMT = $17,104; FV = $0. CPT PV = $60,648
Amount required now to invest and be able to afford education costs in 11 years:
N = 11; I/Y = 3.5%; PMT = $0; FV = $60,648. CPT PV = $41,541
Amount of insurance required = $41,541 - $20,000 = $21,541

[5] Education needs for child #2:
Cost of one year of education in 13 years: N = 13; I/Y = 5%; PV = $10,000; PMT = $0. CPT FV = $18,856
Required cash on hand in 13 years: N = 4; I/Y = 5%; PMT = $18,856; FV = $0. CPT PV = $66,862
Amount required now to invest and be able to afford education costs in 13 years:
N = 13; I/Y = 3.5%; PMT = $0; FV = $66,862. CPT PV = $42,752
Amount of insurance required = $42,752 - $15,000 = $27,752

[6] Retirement needs for Leslie if Pat dies:
N = 32 X 12 = 384; I/Y = 3.5%; PV = $6,700; PMT = $1,000. CPT FV = $726,740
N = 32; I/Y = 3.5%; PMT = $0; FV = $$726,740. CPT PV = $241,706
Retirement needs for Pat if Leslie dies:
N = 30 X 12 = 360; I/Y = 3.5%; PV = $6,700; PMT = $400. CPT FV = $273,282
N = 30; I/Y = 3.5%; PMT = $0; FV = $273,282. CPT PV = $97,364

[*] Projections based on 2016 Projection Assumption Guidelines
Surviving spouse could expect to earn gross rate of return = 6.3%(0.50) + 3.9%(0.5) = 5.1%
Surviving spouse could expect to earn net rate of return after fees = 5.1% - 1.6% = 3.5%
Inflation rate = 2.0%

- Explain that, should either Pat or Leslie die prematurely, the family would have insufficient resources to maintain their current lifestyle, and that their retirement and education goals would be in jeopardy. To protect against this risk, they may consider purchasing individual life insurance policies, and naming each other as beneficiaries.

- Identify that Pat requires about $1.6 million in insurance coverage, while Lesley requires about $1.45 million.

- Explain that the couple has temporary and permanent needs for insurance. The couple's temporary needs include debt repayment, coverage of child-related expenses, education costs, retirement savings and income replacement. To meet these needs, the couple may consider buying term insurance in the amount of $950,000 for Pat, and $975,000 for Leslie. Permanent insurance will be important to cover bequests for the children and final expenses. Each spouse may consider obtaining $20,000 in permanent insurance, such as whole life or universal life insurance to cover their final expenses. Each spouse may also consider obtaining $200,000 in a joint, last-to-die policy to provide a bequest to their children. The couple may wish to consult with an insurance specialist to confirm this and assess the most suitable insurance policies.

- Explain that the couple may also want to see an insurance specialist to weigh the advantages and disadvantages of creditor insurance relative to individual term insurance. Term insurance may be more suitable, based on cost and guaranteed coverage, even if they transfer the mortgage to another financial institution. The couple may be at risk of having their insurance claim denied if their creditor life insurance is underwritten at the time of claim. A rider on a term policy may generate an increase in coverage, without a medical assessment, should the couple decide to re-borrow at a later date. In addition, the proceeds of term insurance will benefit the couple's beneficiaries, as opposed to the financial institution. That said, while the current cost of term insurance may be lower than creditor life insurance premiums, the couple should assess the costs over time for both types of insurance to make an informed decision. If the couple find it beneficial to replace their creditor insurance, they should ensure that a term policy is in place prior to cancelling their existing coverage.

- Estimate the couple's income replacement needs, should either or both of them become disabled and be unable to work.

Short-Term Disability Needs Analysis
Leslie and Pat

	If Leslie Becomes Disabled	If Pat Becomes Disabled
Gross income	$-	$21,541
Taxes on benefits	$-	-$233
Net disability benefit	$-	$21,308
Spouse's net income	$5,667	$11,573
Total family income	$5,667	$32,881
Estimated expenses and cash flows required to meet goals	-$5,917	-$23,668
Surplus / Deficit in Coverage	**-$250**	**$9,213**

Long-Term Disability Needs Analysis
Leslie and Pat

	If Leslie Becomes Disabled	If Pat Becomes Disabled
Gross income	$-	$4,746
Taxes on benefits	$-	$-
Net disability benefit	$-	$4,746
Spouse's net income	$5,667	$2,933
Total family income	$5,667	$7,679
Estimated expenses and cash flows required to meet goals	-$5,917	-$5,917
Surplus / Deficit in Coverage	**-$250**	**$1,762**

- Explain that, while Pat's short-term and long-term disability coverage provides adequate income protection in the event of disability, he may continue to be at risk because of the "any occupation" policy limitation. In other words, he may not be entitled to benefits as long as he can take on any role within his company. He should consider setting up an individual disability policy based on his own occupation. Pat should discuss the appropriate amount and type of disability insurance with an insurance specialist.

- Identify that Leslie has no insurance protection in the event of disability.

- Explain that, without benefits, the family would suffer a cash flow deficit of about $250 per month in the event of Leslie's disability. While this amount may be partially offset by expected savings in Leslie's transportation costs, she may consider purchasing a disability insurance policy to cover the deficit, and any unexpected expenses. Leslie may wish to discuss the appropriate amount and type of disability insurance with an insurance specialist.

- Explain that critical illness insurance may be appropriate for the couple, especially for Leslie given her family's health history. The couple should assess the benefits of critical illness insurance, relative to its cost, with the help of an insurance specialist.

- Explain that the couple may consider buying long-term care insurance to protect themselves from the costs associated with the provision of long-term care, should they be unable to care for themselves. While their retirement savings may provide adequate funds to cover such expenses in retirement, the couple may not be able to afford long-term care in pre-retirement years. It may be prudent for the couple to investigate their options with an insurance specialist.

- Explain that the family lacks an emergency fund, and that it would be prudent to set aside a sum covering six months of expenses, or about $35,000. Doing so would help the couple cover any unexpected expenses, and bridge the waiting period in the event of Leslie's disability. They may establish a line of credit for emergency purposes, or set up a monthly savings plan to help build a reserve.