Optimization of Finances for your Pharmacy

by Amit Harilall, BPharm, RPh and Shruti Harilall, BSc Pharm, RPh, MBA

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Learning Objectives:

Upon successful completion of this lesson, the pharmacist will be able to:

1. Understand the changes in the financial model that a community pharmacy is experiencing
2. Calculate financial ratios
3. Use ratios and calculations to analyze a pharmacy's financial statements
4. Understand how to impact financial ratios such as profitability

Pharmacy financial reimbursement in Canada has changed over the past few years. On the one hand, professional allowances have declined and will most likely continue to decline. On the other hand, pharmacists are increasingly being compensated for expanded services, such as MedsCheck in Ontario.

As pharmacy owners, managers, and pharmacists, we need to understand how these changes affect our practice financially. We also need to understand how to prosper by optimizing our resources and practice model despite these financial changes.

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ANSWERING OPTIONS

1. After carefully reading this lesson, study each question and select the one answer you believe to be correct. Answer online at www.CanadianHealthcareNetwork.ca.
2. To pass this lesson, a grade of at least 70% (11 out of 15) is required. If you pass, your CEU(s) will be recorded with the relevant provincial authority(ies). (Note: some provinces require individual pharmacists to notify them.)

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CASE STUDY

CASE STUDY: Susan's Pharmacy

Let's meet Susan and open up her books. Susan is a pharmacy owner in Ontario who has owned and operated Susan's Pharmacy since 2006. Susan obtained her pharmacy degree in 2002. She does not have any formal business education. After working as a staff pharmacist for two years and then as a pharmacy manager for two years, she opened her own pharmacy and has worked diligently to grow the business. Her prescription count has grown from 9,184 to 16,578 in five years. Her pharmacy is located in a small town, 200 km northeast of Toronto.

Susan was very surprised when her accountant prepared her last set of financial statements (Figures 1 and 2, see pg. 13). He wrote a note to Susan explaining to her that he was concerned about the decline in profitability of her pharmacy over the past three years (2009 to 2011).

Susan asked her accountant to prepare a summary of her financial statements over those three years. Susan tried to review her financial statements and felt overwhelmed. She asked herself, "Where do I start?" Susan researched options available to help her highlight the problem areas and create a pharmacy-specific plan for the next few years.

She arranged for a meeting with a pharmacy business consultant, Frank, who would work together with her and her accountant to help the pharmacy become more profitable. Frank is a licensed pharmacist with an extensive pharmacy financial background.

After receiving Susan's financial statements, Frank calculated ratios to help analyze the performance of her pharmacy. He created a colour-coded chart that visually shows Susan the areas that need to be addressed in her financial plan. In the chart, green is a good ratio, yellow is a caution, and red is a cause for concern (Figure 3, see pg. 13).

Frank reviewed the major categories with Susan by going over the importance of each and explaining how the ratios are calculated. In addition, Frank explained pharmacy industry benchmarks to Susan. Frank then provided some recommendations to Susan to optimize her financials.

REPORT FROM THE PHARMACY BUSINESS CONSULTANT

CASH FLOW

This category represents the liquidity of a pharmacy.

CURRENT RATIO

Current Ratio = Current Assets ÷ Current Liabilities

The current ratio provides an indication of a pharmacy's short-term liquidity (its ability to service its current obligations).[1] For the year-end 2011, the pharmacy had a current ratio of 1.65. This means that there was $1.65 in cash or equivalent assets to pay for every $1 of current debt. The higher the ratio the better, as this means that the pharmacy has more assets to service its liabilities. A higher ratio will also result in a better credit rating with a financial institution.

QUICK RATIO

Quick Ratio = Cash + Accounts Receivable ÷ Current Liabilities

The quick ratio is a more conservative test of a pharmacy's ability to meet its current obligations. It only considers the assets that can be converted to cash quickly to pay off any liabilities. It does not include inventory, as inventory is an asset that may take a longer time to be converted into cash.[1] For the year-end 2011, Susan's Pharmacy had a quick ratio of 0.60. This means that it had $0.60 in cash or equivalent assets to pay for every $1 of current debt. The higher the ratio the better, as this means that the pharmacy has more assets that can be quickly converted into cash to service its liabilities. A higher ratio also means that the pharmacy has enough cash on hand to be able to make all payments due and will be able to maintain a good credit score.

DISCUSSION AND RECOMMENDATIONS

Both the pharmacy's current ratio and quick ratio have been fluctuating up and down over the past three years.

In 2009, it had a current ratio of 1.65. During 2010, its current ratio improved to 1.93. This was due to a greater increase in current assets compared to current liabilities. In 2011, the current ratio declined to 1.65. This was due to a greater increase in current liabilities compared to current assets.

Category	2009	Alert	2010	Alert	2011	Alert
CASH FLOW						
Current ratio	1.65	Caution	1.93	Caution	1.65	Caution
Quick ratio	0.43	Concern	0.73	Concern	0.60	Concern

In 2009, the pharmacy had a quick ratio of 0.43. During 2010, that improved to 0.73. This was due to a greater increase in cash and accounts receivable compared to current liabilities. In 2011, the quick ratio declined to 0.60. This was due to a greater increase in current liabilities compared to cash and accounts receivable.

In order to make a significant difference to cash flow, Frank recommends that Susan create a plan of action in this area. Her focus should be to:

- decrease her accounts receivable
- decrease her debt

A good current ratio to aim for would be above 2.0. A good quick ratio to aim for would be above 1.55.[2] These higher ratios would mean that the pharmacy would have more current assets to service its liabilities and would be more financially secure. The pharmacy would also be in a better position to grow as there would be more cash on hand. This plan of action will be discussed in more detail later in this case study.

The next area that Frank looked at is the pharmacy's current financial position. This area is important to review because it provides an overview of current assets and debt.

FINANCIAL POSITION

This category looks at the current financial position of a pharmacy.

ANNUAL SALES TO TOTAL ASSETS RATIO

Annual Sales to Total Assets = **Annual Sales** ÷ **Total Assets**

The annual sales to total assets ratio measures a pharmacy's efficiency in managing its assets in relation to the sales generated. For the year-end 2011, the pharmacy had an annual sales to total assets ratio of 4.79. This means that $1.00 of assets generated $4.79 in sales. The higher the ratio the better, as this means that a smaller investment in assets is required to generate sales revenue, and the higher the profitability of the pharmacy.

DEBT TO EQUITY RATIO

Debt to Equity Ratio = **Total Liabilities** ÷ **Shareholders' Equity**

The debt to equity ratio shows the debt (total liabilities of a pharmacy) in relation to its equity.[3] For the year-end 2011, the pharmacy had a debt to equity ratio of 4.76. This means that creditors invested $4.76 for every $1.00 that has been invested in the pharmacy. The lower the ratio the better, as this means that there is less debt compared to equity.

DISCUSSION AND RECOMMENDATIONS

The annual sales to assets ratio has been declining over the past three years. This is due to assets increasing at a faster rate than sales. Over the past three years, the debt to equity ratio has improved significantly. The improvement is due primarily to long-term debt being paid off.

In order for Susan to be more efficient with her assets and decrease her debt further, Frank recommends that she create a plan of action in this area. Her focus should be to:

- increase sales while maintaining current assets
- pay off long-term debt by the end of 2012

A good annual sales to total assets ratio to aim for is 5.20 and a good debt to equity ratio to aim for is less than 1.00.[2]

EFFICIENCY (INVENTORY AND SALES)

This category looks at various efficiencies of a pharmacy.

INVENTORY TURNOVER RATE

Inventory Turnover Rate = **Annual Cost of Sales** ÷ **Inventory**

The inventory turnover rate measures the number of times that inventory was sold during the year.[4] For the year-end 2011, the pharmacy had an inventory turnover rate of 6.73. This means that the inventory at the pharmacy was sold

Category	2009	Alert	2010	Alert	2011	Alert
FINANCIAL POSITION						
Annual sales to total assets ratio	6.47	Good	4.83	Good	4.79	Caution
Debt to equity ratio	no equity	Concern	12.26	Concern	4.76	Concern

Category	2009	Alert	2010	Alert	2011	Alert
EFFICIENCY						
Inventory turnover rate	7.95	Caution	7.71	Caution	6.73	Concern
Number of inventory days on hand	45.89	Caution	50.90	Caution	54.23	Caution
Annual sales per square foot	450.22	Concern	459.23	Concern	462.82	Concern

and replaced 6.73 times during the last year. The higher the calculation the better, as this means that the pharmacy is selling its inventory faster and therefore has less money tied up in inventory. This also results in better cash flow.

NUMBER OF INVENTORY DAYS ON-HAND

Number of Inventory Days On-hand = Days in Year ÷ Inventory Turnover Rate

The number of inventory days on hand is another inventory calculation that shows how many days it would take to sell the current inventory at a pharmacy. For the year-end 2011, the pharmacy had 54.23 days of inventory on hand. This means that it would take 54.23 days to sell the entire current inventory of the pharmacy. The lower the calculation the better, as this means that it will take less time to sell off the current inventory. As a result, less money is tied up in inventory and cash flow is improved.

ANNUAL SALES PER SQUARE FOOT

Annual Sales per Square Foot = Annual Sales ÷ Pharmacy Square Feet

The annual sales per square foot calculation indicates the annual sales generated per square foot of a pharmacy. For the year-end 2011, the pharmacy generated $462.82 in sales per square foot.

DISCUSSION AND RECOMMENDATIONS

The inventory turnover rate has declined over the past three years. This means that the pharmacy has become less efficient with its inventory management. As a result, more money is tied up in inventory.

The number of inventory days on-hand has increased over the past three years. This is another indicator that the pharmacy has become less efficient with its inventory management and is holding more inventory than required.

The sales generated per square foot have increased over the past three years; however, there is a lot of room for improvement. Frank's recommendation is to review ways to be more efficient with the space.

Frank recommends that Susan create a plan of action in this area. Her focus should be to:

- increase inventory turnover rate and decrease inventory days on-hand
- increase sales per square foot

Some targets to aim for would be:

- an inventory turnover rate of greater than 9.80 and inventory days on-hand of less than 38[1]
- sales of greater than $1,195 per square foot[2]

PROFITABILITY

This set of calculations reviews the profitability of a pharmacy.

OWNER'S DISCRETIONARY INCOME BEFORE TAX AS A PERCENTAGE OF ANNUAL SALES

Owner's Discretionary Income Before Tax as a % of Annual Sales = Owner's Discretionary Income Before Tax ÷ Annual Sales

The owner's discretionary income before tax as a percentage of annual sales calculation is a measure of how much owner's income a pharmacy's annual sales generates. For the year-end 2011, the pharmacy had a calculation of 15.99%. This means that every $100 in sales resulted in $15.99 of owner's income before taxes were paid. The higher the value the better, as this means that the pharmacy is generating more income from its sales.

INCOME BEFORE TAX AS A PERCENTAGE OF ANNUAL SALES

Income Before Tax as a % of Annual Sales = Income Before Tax ÷ Annual Sales

The income before tax as a percentage of annual sales is a measure of how much income before tax a pharmacy's annual sales generates. For the year-end 2011, the pharmacy had a calculation of 2.48%. This means that every $100 in sales resulted in $2.48 of income before taxes were paid. The higher the value the better, as this means that the pharmacy is generating more income from its sales.

Category	2009	Alert	2010	Alert	2011	Alert
PROFITABILITY						
Owner's discretionary income before tax as a % of annual sales	26.86%	Good	22.00%	Good	15.99%	Good
Income before tax as a % of annual sales	12.98%	Good	8.39%	Good	2.48%	Concern
Annual income before tax as a % of annual gross profit	42.82%	Good	27.67%	Good	8.05%	Concern
Annual gross profit %	30.00%	Good	30.00%	Good	31.00%	Good

ANNUAL INCOME BEFORE TAX AS A PERCENTAGE OF ANNUAL GROSS PROFIT

Annual Income Before Tax as a % of Annual Gross Profit = Annual Income Before Tax ÷ Annual Gross Profit

The annual income before tax as a percentage of annual gross profit calculation is a measure of how much income a pharmacy's gross profit generates before taxes. For the year-end 2011, the pharmacy had a calculation of 8.05%. This means that every $100 of gross profit resulted in $8.05 of annual income before taxes were paid. The higher the value the better, as this means that the pharmacy is generating more income from its gross profit.

ANNUAL GROSS PROFIT PERCENTAGE

Annual Gross Profit % = Annual Gross Profit ÷ Sales Revenue

The annual gross profit percentage is a calculation of how much gross profit a pharmacy generates as a percentage of sales revenue. For the year-end 2011, the pharmacy had a calculation of 31%. This means that every $100 of sales resulted in $31 of gross profit. The higher the value the better, as this means that the pharmacy is generating more gross profit from its sales.

DISCUSSION AND RECOMMENDATIONS

The pharmacy's profitability has decreased significantly during the past three years. The decline has been mainly due to a significant decline in professional allowances since 2009. Professional allowances decreased by $32,405 from 2009 to 2010 and by $37,802 from 2010 to 2011.

Owner's income (management wages + net operating income + dividends) has decreased by $33,283 from 2009 to 2010 and by $40,136 from 2010 to 2011. The income before provision for income tax has declined by $39,860 from 2009 to 2010 and by $54,055 from 2010 to 2011.

Gross profit percentage was at 30% in 2009 and 2010 and has increased by 1% in 2011 to 31%. The increase in gross profit in 2011 was mainly due to the income from professional services (MedsCheck), which was $4,585.

Profitability is the area of biggest concern. Frank suggests Susan acts quickly to reverse this declining profitability at the pharmacy. Frank recommends that Susan create a plan of action in this area. Her focus should be to:

- increase revenue from professional services
- increase the gross margin on front-shop sales
- increase prescription sales
- look for new sources of revenue

STAFF PRODUCTIVITY

This calculation reviews a pharmacy's wage spend.

ANNUAL WAGE COST AS A PERCENTAGE OF ANNUAL GROSS PROFIT

Annual Wage Cost as a % of Annual Gross Profit = Annual Wage Cost ÷ Annual Gross Profit

The annual wage cost as a percentage of annual gross profit is a calculation of how much of wages were spent to achieve gross profit. For the year-end 2011, the pharmacy had a calculation of 73.99%. This means that for every $100.00 of gross profit, $73.99 was spent on wages. The lower the calculation the better, as it means that the pharmacy is more efficient with wages.

DISCUSSION AND RECOMMENDATIONS

The pharmacy's wage spend has been increasing faster than its gross profit over the past three years (wage spend is equal to management fees + subcontracts + salaries and benefits):

- in 2009, the gross profit was $273,010 and the wage spend was $177,974
- in 2010, the gross profit was $278,471 and the wage spend was $188,583
- in 2011, the gross profit was $285,636 and the wage spend was $211,350

Frank recommends that Susan create a plan of action in this area. Her focus should be to:

- review changes in staffing over the past three years and determine how to increase the efficiency of the pharmacy

A target to aim for would be to:

- spend no more than 45% of gross profit on wages

Once Susan put her plan together, she met with Frank to review. Together they created the following detailed final plan.

Category	2009	Alert	2010	Alert	2011	Alert
STAFF PRODUCTIVITY						
Annual wage cost as a % of annual gross profit	65.19%	Concern	67.72%	Concern	73.99%	Concern

ACTION PLAN & SUMMARY OF CHANGES

ACTION PLAN: Susan's Pharmacy, 2012 to 2014

PLAN TO ADDRESS CASH FLOW

1. Decrease accounts receivable

a. Every Friday morning, one hour will be set aside for the pharmacy assistant to bill all customers with accounts.

b. Every Friday morning, the pharmacy assistant will review all accounts and she will call all customers with overdue accounts and remind them about payment. If the customers do not respond within seven days, she will mail them a notice of overdue account.

2. Decrease liabilities

a. Susan will decrease her operating line of credit by $5,000 each year over the next three years by paying down a portion of this debt.

b. The pharmacy assistant will schedule two hours every Monday morning to ensure that all accounts payable are up to date. She will ensure that payments are made on time and that all prompt payment discounts are received. The goal is to decrease accounts payable by $20,000 over the next three years.

PLAN TO ADDRESS FINANCIAL POSITION

1. Increase sales and gross profit

a. Susan and her team set the following targets for expanded services:

YEAR 2012

i. Seven MedsCheck annual reviews per week
ii. Six MedsCheck follow-up reviews per week
iii. Two MedsCheck diabetes medication reviews per week
iv. Two MedsCheck diabetes follow-up reviews per week
v. Two smoking cessation consultations per week
vi. Two smoking cessation follow-up consultations per week

This will result in the following additional sales and gross profit dollars during 2012:

($)			2012
Expanded service:	**Rate**	**Weekly**	**Yearly**
MedsCheck annual reviews	60	420	21,840
MedsCheck follow-up reviews	25	150	7,800
MedsCheck diabetes medication reviews	75	150	7,800
MedsCheck diabetes follow-up reviews	25	50	2,600
Smoking cessation consults	45	90	4,680
Smoking cessation follow-up consults	15	30	1,560
Total		**890**	**46,280**

YEAR 2013

i. Nine MedsCheck annual reviews per week
ii. Seven MedsCheck follow-up reviews per week
iii. Three MedsCheck diabetes medication reviews per week
iv. Two MedsCheck diabetes follow-up reviews per week
v. Two smoking cessation consultations per week
vi. Two smoking cessation follow-up consultations per week

This will result in the following additional sales and gross profit dollars during 2013:

($)			2013
Expanded service:	**Rate**	**Weekly**	**Yearly**
MedsCheck annual reviews	60	540	28,080
MedsCheck follow-up reviews	25	175	9,100
MedsCheck diabetes medication reviews	75	225	11,700
MedsCheck diabetes follow-up reviews	25	50	2,600
Smoking cessation consults	45	90	4,680
Smoking cessation follow-up consults	15	30	1,560
Total		**1,110**	**57,720**

YEAR 2014

i. Ten MedsCheck annual reviews per week
ii. Seven MedsCheck follow-up reviews per week
iii. Three MedsCheck diabetes medication reviews per week
iv. Three diabetes follow-up reviews per week
v. Three smoking cessation consultations per week
vi. Three smoking cessation follow-up consultations per week

This will result in the following additional sales and gross profit dollars during 2014:

($)			2014
Expanded service:	**Rate**	**Weekly**	**Yearly**
MedsCheck annual reviews	60	600	31,200
MedsCheck follow-up reviews	25	175	9,100
MedsCheck diabetes medication reviews	75	225	11,700
MedsCheck diabetes follow-up reviews	25	75	3,900
Smoking cessation consults	45	135	7,020
Smoking cessation follow-up consults	15	45	2,340
Total		**1,255**	**65,260**

b. Introduce a niche front shop category:
Susan's Pharmacy has a lot of unused front shop space. Frank suggests introducing a home healthcare category, as the closest home healthcare store is a 45 km drive from her town. Susan plans to attend the upcoming seating and mobility conference and take some online courses on various home healthcare products. Two hundred square feet of front shop will be devoted to the home healthcare category. Susan was pleased to learn that this category will generate higher gross profit dollars for her pharmacy as this category has higher-priced items than all the other categories at her pharmacy.

c. Introduce a niche prescription category:
Susan reached out to her local physicians to find out what services they suggest she add to her pharmacy. Many physicians stated that drug shortages were a concern and asked if Susan could compound some of these medications. Susan decided to expand her dispensary and start a compounding business. She will add 100 square feet to her dispensary from her front shop and set up a compounding area. She will attend a compounding course within the next six months to get started.

PLAN TO INCREASE EFFICIENCY

1. Increase inventory turnover rate

a. On the last weekday of each month, the pharmacy assistant will prepare a list of any expired medications and arrange to get credit for them.
b. Every Saturday, the pharmacy assistant will go through the prescription pick-up drawers and follow up on any prescriptions that have not been picked up. If the patient does not require the medication, she will cancel the prescription, credit the payer and return it to stock.
c. The inventory system is going to be changed from manually ordering drugs to an automatic replenishment system. This will save time in ordering the medication. It will also enable order points to be set so that excess inventory can be reduced. The staff plans to come in on a Sunday to set up all the drugs and change to automatic replenishment.
d. Susan is going to have a clearance sale for any front shop merchandise that has not sold within the past year. This will clear out any old front shop inventory.

2. Increase sales per square foot

a. Of the 1,400 square feet of front shop, 200 square feet are going to be used for home healthcare and 100 square feet are going to be used to expand the dispensary for a compounding area. These changes will result in increased sales.
b. Susan is going to lease out 100 square feet to a new massage therapist who would like to set up a practice in 2013. The massage therapist will pay for all leasehold improvements. This will generate an income of $3,500 per year.
c. Susan will invest in flyers each quarter, which will be distributed in her local community. The flyer will advertise a clinic day and will have coupons related to the clinic day. Susan will use this opportunity to introduce herself to the local community.

PLAN TO INCREASE PROFITABILITY

1. Increase front-shop gross profit

a. Susan will run a report and identify any items with gross profit margins below 30%. She will evaluate whether she could increase the gross profit on any of these items.
b. The introduction of the home healthcare category will increase her front-shop gross profit.
c. The front-shop sales associate will update all the planograms to ensure that the newest and best selling items are in stock.

2. Increase prescription sales

a. Susan will increase prescription sales by introducing a refill reminder service, which will also increase patient adherence. Going forward, all patient prescriptions with refills will be marked as autofill. This will generate a daily list of patients with refills.

PLAN TO INCREASE STAFF PRODUCTIVITY

1. Increase sales and gross profit using the plans discussed above

John, the pharmacy assistant, will be a regulated technician within four months, as he has completed all the courses. Susan will hire a pharmacy cashier who will be responsible for handling cash, filing prescriptions, answering the phone, and ordering supplies. As a result of these changes, John will be able to check all the blister packs and refill prescriptions. The contract pharmacist currently spends 50% of her time checking blister packs. Her hours will be reduced from 545 hours per year to 290. This will result in savings of $14,000 per year.

Susan will schedule initial expanded service consults like MedsCheck annual reviews, diabetes annual reviews, and initial smoking cessation consults when there is pharmacist overlap with the contract pharmacist. Susan will schedule all follow-up expanded service consults like MedsCheck follow-up, diabetes follow up, and smoking cessation follow-up when John is working. These consults are shorter and John will be freeing up regular dispensing time for the pharmacist.

Susan and Frank met with Susan's accountant and presented their plans for the next three years. Susan's accountant reviewed the financial targets and prepared a pro forma income statement and balance sheet for years 2012 to 2014 (Figures 4 and 5, see pg. 14).

SUMMARY OF CHANGES: Susan's Pharmacy, Income Statement over the Next Three Years

Sales
- Total sales growth of 5% for each year over the next three years
- Professional services revenue growth over the next three years

Gross profit
- Gross profit will increase from 31% in 2011 to 34% in 2012 and 2013; there will be a further increase to 35% in 2013. This is a result of:
  - an increase in expanded services, which have a higher gross profit
  - the introduction of compound prescriptions, which have a higher gross profit

Wages and benefits
- Wage spend as a percentage of gross profit will decrease from 73.99% in 2011 to 50.73% in 2014. This is a result of:
  - having a regulated technician taking over some of the pharmacist's current duties and freeing up more of the pharmacist's time for expanded services
  - reducing contract pharmacist hours as some of her tasks will be taken over by John (regulated technician)
  - having a new cashier who will take over some of the assistant duties from John so that he can practice as a regulated pharmacy technician
  - Susan taking a set salary of $110,000 and taking additional income as dividends in order to reduce her income tax

Advertising and promotion
- The cost of advertising and promotion will increase from $660 in 2011 to $4,680 in 2012, to $4,700 in 2013 and $4,721 in 2014 as a result of the new flyer program.

Professional allowances
- Professional allowances will decrease from $64,793 in 2011 to $22,677 in 2012 and they will be eliminated for 2013 and 2014.

Net income
- Net income will increase from $19,195 in 2011 to $45,505 in 2012 as a result of the growth in expanded services and compounding in 2012.
- Net income will decrease from $45,505 in 2012 to $34,482 in 2013 as a result of the elimination of professional allowances in 2013.
- During 2013 and 2014 there will be $3,500 of additional rent income.
- Net income will increase from $34,482 in 2013 to $50,200 in 2014 as a result of an increase in expanded services and compounding in 2014. The growth of the compounding business will result in another 1% growth of gross profit.

SUMMARY OF CHANGES: Susan's Pharmacy, Balance Sheet over the Next Three Years

Accounts receivable
- Decrease from $42,000 in 2011 to $36,750 in 2014

Inventory
- Decrease from $95,080 in 2011 to $76,000 in 2014

Capital assets
- Increase from $14,036 in 2011 to $35,845 in 2014 as a result of the purchase of compounding equipment

Total assets
- Increase from $193,188 in 2011 to $222,075 in 2014

Operating line of credit
- Decrease from $30,000 in 2011 to $15,000 in 2014 as a result of paying portions off each year

Accounts payable and accrued liabilities
- Decrease from $75,000 in 2011 to $55,000 in 2014 as a result of the new systems put into place for vendor payments

Long-term debt
- Paid off by the end of 2012

Total liabilities
- Reduced from $159,642 in 2011 to $79,342 in 2014

Shareholders' equity
- Increase from $33,546 in 2011 to $142,733 by 2014

Frank took the pro forma income statement and balance sheets and created a chart with ratios for Susan's pharmacy from years 2012 to 2014. Susan realizes the importance of reviewing her financial statements and plans to meet with her pharmacy business consultant and accountant each year to track progress and make any necessary changes to her pharmacy's financial plan. She feels confident that she can improve the profitability of her pharmacy, and holds a staff meeting to make the necessary changes.

FIGURES

FIGURE 1: Income statement for Susan's Pharmacy 2009 to 2011

Income statement ($)	2009	2010	2011
REVENUE			
Sales	900,443	918,452	921,051
Professional services	0	0	4,585
Total Revenue	**900,443**	**918,452**	**925,636**
Cost of goods sold	627,433	639,981	640,000
Gross profit	273,010	278,471	285,636
GP%	30%	30%	31%
OPERATING EXPENSES			
Management fees	125,000	125,000	130,000
Subcontracts	25,500	25,692	30,000
Salaries and benefits	27,474	37,891	51,350
Rent	50,000	50,000	51,000
Interest and bank charges	27,013	27,554	27,769
Loan interest	5,491	4,302	2,542
Office supplies	6,338	7,175	7,040
Insurance	4,661	1,277	5,500
Professional fees	4,227	3,853	4,764
Telephone	4,114	5,033	4,643
Amortization	4,145	4,097	3,733
Dues, memberships, and education	1,245	4,753	3,681
Utilities	1,770	2,088	2,162
Repairs and maintenance	788	2,368	1,572
Bad debts	2,012	1,816	1,025
Advertising and promotion	1,329	1,124	660
Meals	0	0	0
Travel	0	0	0
Total Operating Expenses	**291,107**	**304,023**	**327,441**
OTHER INCOME			
Professional allowances	135,000	102,595	64,793
Rent income	0	0	0
Income before provision for income taxes	116,903	77,043	22,988
Provision for income taxes	19,289	12,712	3,793
NET INCOME	**97,614**	**64,331**	**19,195**

FIGURE 2: Balance sheet for Susan's Pharmacy 2009 to 2011

Balance Sheet ($)	2009	2010	2011
ASSETS			
Current Assets:			
Cash	13,397	24,278	23,255
Accounts receivable	20,421	41,177	42,000
Inventory	78,879	89,253	95,080
Prepaid expenses	8,333	8,333	8,333
HST recoverable	9,882	10,178	10,484
Total Current Assets	**130,912**	**173,219**	**179,152**
Capital assets	8,228	17,081	14,036
Total Assets	**139,140**	**190,300**	**193,188**
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current Liabilities:			
Operating line of credit	10,000	17,188	30,000
Accounts payable and accrued liabilities	50,000	60,000	75,000
Income taxes payable	19,289	12,712	3,793
Due to shareholders	0	0	0
Total Current Liabilities	**79,289**	**89,900**	**108,793**
Long-term debt	109,831	86,049	50,849
Total Liabilities	**189,120**	**175,949**	**159,642**
Shareholders' Equity:			
Share capital	20	20	20
Dividends paid	0	0	0
Retained earnings (deficit)	-50,000	14,331	33,526
Total Shareholders' Equity	**-49,980**	**14,351**	**33,546**
Total Liabilities and Shareholders' Equity	**139,140**	**190,300**	**193,188**

FIGURE 3: Financial ratios for year-end 2009 to 2011

Category	2009	Alert	2010	Alert	2011	Alert
CASH FLOW						
Current ratio	1.65	Caution	1.93	Caution	1.65	Caution
Quick ratio	0.43	Concern	0.73	Caution	0.60	Concern
FINANCIAL POSITION						
Annual sales to total assets ratio	6.47	Good	4.83	Good	4.79	Caution
Debt to equity ratio	no equity	Concern	12.26	Concern	4.76	Concern
EFFICIENCY						
Inventory turnover rate	7.95	Caution	7.71	Caution	6.73	Concern
Number of inventory days on hand	45.89	Caution	50.90	Caution	54.23	Caution
Annual sales per square foot	450.22	Concern	459.23	Concern	462.82	Concern
PROFITABILITY						
Owner's discretionary income before tax as a % of annual sales	26.86%	Good	22.00%	Good	15.99%	Good
Income before tax as a % of annual sales	12.98%	Good	8.39%	Good	2.48%	Concern
Annual income before tax as a % of annual gross profit	42.82%	Good	27.67%	Good	8.05%	Concern
Annual gross profit %	30.00%	Good	30.00%	Good	31.00%	Good
STAFF PRODUCTIVITY						
Annual wage cost as a % of annual gross profit	65.19%	Concern	67.72%	Concern	73.99%	Concern

FIGURE 4: Pro forma income statement for Susan's Pharmacy 2012 to 2014

Income statement ($)	2012	2013	2014
REVENUE			
Sales	925,638	962,794	1,006,279
Professional services	46,280	57,720	65,260
Total Revenue	**971,918**	**1,020,514**	**1,071,539**
Cost of goods sold	637,030	673,882	700,576
Gross profit	334,888	346,632	370,963
GP%	34%	34%	35%
OPERATING EXPENSES			
Management fees	110,000	110,000	110,000
Subcontracts	16,000	16,000	16,000
Salaries and benefits	57,538	59,323	62,192
Rent	51,000	52,000	52,000
Interest and bank charges	29,158	30,615	32,146
Loan interest	747	0	0
Office supplies	7,251	7,469	7,693
Insurance	5,665	5,835	6,010
Professional fees	4,907	5,054	5,206
Telephone	4,782	4,926	5,074
Amortization	3,845	3,960	4,079
Dues, memberships, and education	3,791	3,905	4,022
Utilities	2,227	2,294	2,362
Repairs and maintenance	1,619	1,668	1,718
Bad debts	1,056	1,087	1,120
Advertising and promotion	4,680	4,700	4,721
Meals	0	0	0
Travel	0	0	0
Total Operating Expenses	**304,266**	**308,836**	**314,343**
OTHER INCOME			
Professional allowances	22,677	0	0
Rent income	0	3,500	3,500
Income before provision for income taxes	53,299	41,296	60,120
Provision for income taxes	8,794	6,814	9,920
Net Income	**44,505**	**34,482**	**50,200**

FIGURE 5: Pro forma balance sheet for Susan's Pharmacy 2012 to 2014

Balance Sheet ($)	2012	2013	2014
ASSETS			
Current Assets:			
Cash	11,269	25,811	53,691
Accounts receivable	40,500	35,000	36,750
Inventory	85,889	75,080	76,000
Prepaid expenses	8,333	8,333	8,333
HST recoverable	10,798	11,122	11,456
Total Current Assets	**156,789**	**155,346**	**186,230**
Capital assets	15,000	23,423	35,845
Total Assets	**171,789**	**178,769**	**222,075**
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current Liabilities:			
Operating line of credit	25,000	20,000	15,000
Accounts payable and accrued liabilities	65,000	60,000	55,000
Income taxes payable	8,794	6,236	9,342
Due to shareholders	0	0	0
Total Current Liabilities	**98,794**	**86,236**	**79,342**
Long-term debt	14,944	0	0
Total Liabilities	**113,738**	**86,236**	**79,342**
Shareholders' Equity:			
Share capital	20	20	20
Dividends paid	-20,000	-20,000	-20,000
Retained earnings (deficit)	78,031	112,513	162,713
Total Shareholders' Equity	**58,051**	**92,533**	**142,733**
Total Liabilities and Shareholders' Equity	**171,789**	**178,769**	**222,075**

FIGURE 6: Financial ratios for year-end 2012 to 2014

Category	2012	Alert	2013	Alert	2014	Alert
CASH FLOW						
Current ratio	1.59	Caution	1.80	Caution	2.35	Good
Quick ratio	0.52	Concern	0.71	Caution	1.14	Caution
FINANCIAL POSITION						
Annual sales to total assets ratio	5.66	Good	5.71	Good	4.83	Caution
Debt to equity ratio	1.96	Caution	0.93	Good	0.56	Good
EFFICIENCY						
Inventory turnover rate	7.42	Caution	8.98	Caution	9.22	Caution
Number of inventory days on hand	49.21	Caution	40.67	Caution	39.6	Caution
Annual sales per square foot	485.96	Concern	537.11	Concern	563.97	Concern
PROFITABILITY						
Owner's discretionary income before tax as a % of annual sales	18.86%	Good	17.96%	Good	17.74%	Good
Income before tax as a % of annual sales	5.48%	Caution	4.05%	Caution	5.61%	Caution
Annual income before tax as a % of annual gross profit	15.92%	Caution	11.91%	Concern	16.21%	Caution
Annual gross profit %	34.00%	Good	34.00%	Good	35.00%	Good
STAFF PRODUCTIVITY						
Annual wage cost as a % of annual gross profit	54.81%	Concern	53.46%	Concern	50.73%	Concern

QUESTIONS

Please select the best answer for each question or answer online at **www.CanadianHealthcareNetwork.ca** for instant results.

1) Which of the following is the correct calculation for the current ratio?
a) Current ratio = current assets ÷ long-term liabilities
b) Current ratio = current liabilities ÷ current assets
c) Current ratio = fixed assets ÷ current liabilities
d) Current ratio = current assets ÷ current liabilities

2) A pharmacy has a current ratio of 1.70. This means that the pharmacy has $1.70 of debt for every $1.00 of assets.
a) True
b) False

3) Which of the following is the correct calculation for the quick ratio?
a) Quick ratio = (cash + accounts receivable) ÷ current liabilities
b) Quick ratio = (cash – accounts receivable) ÷ current liabilities
c) Quick ratio = (cash + current liabilities) ÷ current assets
d) Quick ratio = (current assets – current liabilities) ÷ accounts receivable

4) Pharmacy A has a quick ratio of 0.70. Pharmacy B has a quick ratio of 0.95. Which of the following statements is true?
a) Pharmacy A has more cash or equivalent assets to pay off its debt than Pharmacy B
b) Pharmacy B has more cash or equivalent assets to pay off its debt than Pharmacy A

5) Which of the following is the correct calculation for the annual sales to total assets ratio?
a) Annual sales to total assets ratio = total assets ÷ annual sales
b) Annual sales to total assets ratio = annual sales ÷ total assets
c) Annual sales to total assets ratio = current assets ÷ annual sales
d) Annual sales to total assets ratio = annual sales ÷ current assets

6) The annual sales to total assets ratio of a pharmacy is 5.50. Which of the following statements is true?
a) Each $5.50 investment in assets generates $1.00 in sales
b) Each $1.00 investment in assets generates $5.50 in sales

7) Which of the following is the correct calculation for the debt to equity ratio?
a) Debt to equity ratio = current liabilities ÷ retained earnings
b) Debt to equity ratio = total liabilities ÷ shareholders' equity
c) Debt to equity ratio = total liabilities ÷ total assets
d) Debt to equity ratio = current liabilities ÷ total assets

8) Which of the following statements is true?
a) The debt to equity ratio shows debt in relation to equity
b) The debt to equity ratio shows current liabilities in relation to retained earnings

9) Pharmacy A has an inventory turnover rate of 5. Pharmacy B has an inventory turnover rate of 8. Which of the following statements is true?
a) Pharmacy A sells its inventory faster than Pharmacy B
b) Pharmacy B sells its inventory faster than Pharmacy A

10) A pharmacy has 60 days of inventory on hand. Which of the following statements is true?
a) It will take 60 days to sell the current inventory of the pharmacy
b) The pharmacy has an inventory turnover rate of 8

11) Which of the following is the correct calculation for owner's discretionary income before tax as a percentage of annual sales ratio?
a) Owner's discretionary income before tax as a percentage of annual sales = annual sales ÷ owner's discretionary income before tax
b) Owner's discretionary income before tax as a percentage of annual sales = annual sales ÷ net operating income before tax
c) Owner's discretionary income before tax as a percentage of annual sales = owner's discretionary income before tax ÷ annual sales
d) Owner's discretionary income before tax as a percentage of annual sales = annual sales ÷ net operating income

12) Which of the following will not lead to an increase in gross profit?
a) Increasing the gross margin on front-shop items
b) Increasing the revenue from higher gross profit expanded services
c) Increasing the cost of goods sold
d) Decreasing the cost of goods sold

13) Which of the following statements is true?
a) Decreasing accounts receivable will improve cash flow
b) Increasing accounts receivable will improve cash flow

14) Pharmacy A spends 50% of its gross profit on wages. Pharmacy B spends 45% of its gross profit on wages. Which of the following statements is true?
a) Pharmacy A is more efficient with its wage spend than Pharmacy B
b) Pharmacy B is more efficient with its wage spend than Pharmacy A

15) A pharmacy plans to invest $30,000 in compounding equipment. Which of the following statements is true?
a) This investment will cause the current assets at the pharmacy to increase by $30,000
b) This investment will cause the capital assets at the pharmacy to increase by $30,000

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Optimization of Finances for your Pharmacy

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Reviewers

Reviewed by David Cunningham, BMath, CMA, CA.

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