Module 2

Financial Statements: Preventative Care of the Private Medical Clinic

A. The Importance of Financial Records

B. The Income Statement

C. The Balance Sheet

D. Cash Flow

Module 2—Financial Statements: Preventative Care of the Private Medical Clinic

Just as you need to keep records and understand the health of your patient to manage his or her care, you need to understand the financial health of your private medical clinic to manage it effectively and plan for future growth.

Objectives:

By the end of this session, you will

- read and interpret the assets, liabilities, and capital of a business and understand the opportunities and limitations to business growth
- read and interpret an income statement to determine what the financial information is revealing about the business over a period of time
- read a cash flow statement to determine what the information reveals about the inflow and outflow of cash and high and low points of liquidity
- identify solutions to incorporate into a business based on an interpretation of the financial information

Key Terms:

- **Assets:** What the business has; the resources that it uses to generate income
- **Balance sheet:** A snapshot of a financial position of a business at one point in time
- **Capital (also referred to equity):** Capital is what a business owns. Unlike liabilities, the capital of a business does not have to be paid back. Therefore it represents the money or assets that the owner has put into the business to purchase assets and keep the business going.
- **Cash flow projection:** A picture of how much money can be expected to come into a business and flow out of it over a period of time
- **Cash flow statement:** A record of the actual inflow and outflow of cash during a period of time, usually one week or month
- **Cost of sales (also referred to as direct expenses):** Expenses that relate directly to the level of sales, roughly the same as variable costs

- **Expenses:** What a business pays for goods and services used in the process of earning revenue (they are costs necessary for the business to generate revenue and operate)
- **Financial management**: Analyzing and reviewing the financial information of a business to help make decisions to improve its performance
- **Financial recordkeeping:** Tracking the transactions of a business in monetary terms
- **Financial records:** Any written way of tracking the money flowing into or out of a business, whether in the form of cash or credit
- **Financial statements:** These documents provide information on how a business is doing financially. They organize the information a business generates into structured formats to help owners make important planning decisions.
- **Income statement:** A report covering a specific period of time that tells whether a business made a profit or incurred a loss
- **Indirect expenses:** Costs that do not vary closely with the level of sales, roughly the same as fixed costs
- **Liabilities:** What a business owes, the debts the enterprise has that have not been paid by the date the balance sheet is prepared
- **Net income:** The amount of money that is left after subtracting all expenses from revenues, also known as profit
- **Revenue:** Money a business received (or will receive) for goods and services rendered over a period of time

A. Introduction: The Importance of Financial Records

Financial statements **organize** and **document** the financial information of a business. They are documents that provide information on how the business is doing in regard to financial resources and commitments. Financial statements organize information into structured formats so that a business owner can easily review financial information to make planning decisions.

There are many different kinds of financial statements that business owners use to organize, document, and analyze. The most common financial statements are

- balance sheets
- income statements
- cash flow statements

Case Study: Dr. Mitiku Eshete wants to improve his clinic

Dr. Mitiku Eshete has been providing tuberculosis (TB) screening and treatment for the past year. Recently he noticed that clients who come for TB treatment do not have a reasonable place to wait. He believes that the number of clients being treated for TB has increased. He is considering expanding the TB treatment room to include a better waiting area. He has thought about the market and thinks that it is realistic to improve the waiting area. He knows that the business has been profitable and believes he should be able to afford to expand the waiting area and make it nicer using his savings and a loan.

When thinking about his financial situation, he remembers that last month he earned birr 40,000 in revenue and his total expenses are usually birr 30,000. He knows, however, that he only has about birr 8,400 in a business bank account. Dr. Mitiku heard the laboratory technician say they need some supplies, and he wonders if the business has enough cash. Where has the rest of the income gone?

He remembers the bookkeeper told him recently that two of the clinic's corporate credit clients are past due on their accounts. Also he knows that extra supplies were purchased last month in anticipation of the malaria season.

Now Dr. Mitiku is wondering if the waiting room is the best idea for a clinic improvement. Maybe there is something else he should invest in to generate more business. Maybe he should buy an electrocardiograph machine? An ultrasound machine?

How can Dr. Mitiku figure out the best way to invest in the clinic?

Exercise:

1. What information does Dr. Mitiku need to help him think about the best way to invest in the clinic?

2. Where can he find this information?

> *"Just like we keep patient records to know how they are doing and to know whether there is risk of complications and to be able to communicate with others the status of our patient, we need to keep these records for the same purposes for our business."*
>
> Jean, clinic owner

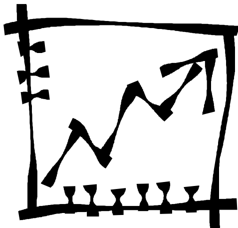
B. The Income Statement

The income statement answers the questions:

As the owner of a private medical clinic, do I earn money or lose money?

If I earn money, how much?

If I lose money, how much?



The income statement documents a company's revenues and expenses for a period of time. From this information you are able to determine if a business made a profit or incurred a loss.

The income statement shows the medical clinic's profitability, which reflects the business performance and how much can be reinvested into it.

By reading an income statement you can identify the sources of your medical practices' income and expenses to determine its operating performance.

The simple rule for determining profit or loss is the equation

Net income = Revenues – Expenses

The income statement lists

- the amount of total revenues for the period on the income statement
- the amount of total expenses for the period on the income statement
- the net income for the period on the income statement

This information will tell

- if revenues have increased or decreased over a period of time
- if costs have increased or decreased over a period of time
- if profits have increased or decreased over a period of time

Using this information one can determine

- areas of the business that are over or under budget
- items that are causing unexpected or greater than expected expenses
- services or sales that are less or greater than expected

Many business owners draw an income statement at the end of every month and compare them from period to period. The net result from an income statement for a year feeds into the capital part of the balance sheet.

Quick review: Check the appropriate box.

ITEMS	REVENUE	EXPENSES
Salary		
Injection fees		
Test kits purchased		
Amount collected for baby delivery		
Income tax paid		
Three lamps replaced		
Provide TB medicine		
Rent		

Completing an Income Statement

To construct the income statement you will need

- revenues for the period
- expenses for the period

1. **Calculate total revenue for the period:** This figure describes the total sales for the time period.

   Total revenue = Earnings from office visits, corporate credit clients, product sales

2. **Calculate total expenses for the period:** This figure describes all the business expenses for the time period.

   Total expenses =

   - salaries
   - health material
   - petrol and maintenance for vehicles
   - rent
   - lease expense
   - depreciation on equipment
   - materials for the office and cleaning
   - water and sanitation
   - electricity
   - communication and phones
   - profit taxes
   - others

3. **Calculate net income before taxes:** This figure describes the net income the business has for the month before taxes are calculated.

   Net income before taxes = Revenue – Expenses

4. **Calculate net income:** Net income is the practice's profit, or loss, for the time period of the income statement.

   Net Income = Net income before taxes – Taxes paid

Exercise: Construct an Income Statement for the AA Higher Clinic

The AA Higher Clinic just hired an accountant. At the end of his first week the owner of the clinic asked him to prepare an income statement. After collecting all the ledgers and receipts, the accountant was able to determine the following:

- During the past week, 102 patients visited the clinic. The clinic charges a flat rate of birr 15 for a doctor consultation.
- Money collected for laboratory work totaled birr 2,555, and the clinic charged 4 people a total of birr 290 for x-rays. The total amount patients paid for injections was birr 2,465.
- Last week the clinic delivered two babies. For each delivery it charged birr 325. Money the clinic collected for ultrasounds totaled birr 122. After adding all of these receipts, the accountant noticed an extra birr 1,350. He entered this amount in "other."

To determine the expenses, the accountant reviewed the invoices paid for the week and determined:

- Salaries paid during the week amounted to birr 546. Rent for the clinic was birr 3,600 for the week. The administration officer gave the accountant a file that included a taxi receipt for birr 14, a receipt from a store for office supplies totaling birr 42, and a receipt for supplies used regularly in the clinic for birr 917. The file also included a bill that was paid from a local repair person to fix a broken pipe in the clinic, which totaled birr 115, and a receipt for food for a small party the clinic held for one of the nurses, which totaled birr 97.
- Based on the lab and x-ray expense record the clinic keeps, the accountant determined that it had spent birr 2,722 on these services.

Use this information to create an income statement.

Income Statement for the AA Higher Clinic

Revenue	**Birr**
Doctor consultation	
Laboratory	
X-ray	
Ultrasound	
Injections	
Delivery	
Others	
Total revenue	
Expenses	**Birr**
Laboratory and x-ray	
Consumable materials	
Office supplies	
Transportation	
Miscellaneous	
Salaries	
Utilities	
Repair and maintenance	
Rent	
Taxes	
Total expenses	
Net profit or loss	

Calculating the Annual Income Statement

When you calculate your monthly or annual income statement, it is important to have detailed information about your income and expenses. Understanding the types of revenue and costs will help you identify

- revenue streams that are healthy and those that are not
- costs associated with different revenue streams

This information is beneficial as you will be able to compare detailed financial information regarding revenue and costs to manage those resources. The most common way to organize an annual profit and loss statement is described in the following table.

First pinpoint your gross profit, profit before taxes, and profit after taxes. Using this formula, you can calculate your profit after taxes, which is called net profit.

	Sales	Total revenue the business activity generates
-	Cost of sales	Costs directly tied to generate revenue
=	**Gross profit**	Amount left to pay operating expenses
-	Operating expenses	All other costs not related to generating revenue
-	Pretax profit	Profits the business made before tax
-	Income tax	Income tax
=	**Net profit**	What the business can reinvest

Cost of sales = The direct cost of the products and services the business sells to generate revenue

These costs are directly identifiable with a service or product sold. The cost of sales varies directly with what is sold. **Cost of sales also can be referred to as direct expenses**.

Gross profit = The difference between revenue and the cost of providing a service

Operating expenses = Expenses incurred in the general operations of a business

These expenses do not vary in relation to the volume of the service or product sold. **Operating expenses also can be referred to as indirect expenses.**

Exercise: Create an Annual Income Statement for Highpoint Clinic

The accountant has collected information to create the end-of-year profit and loss statement for the Highpoint Clinic.

He first summarized the revenue generated during the year:

REVENUE		BIRR
Doctor consultation fee		102,560
Injection service fee		115,260
Blood pressure measurement fee		4,870
Dressing fee		15,720
Minor surgery fee		10,830
Laboratory exam fee		229,480
Other medical care fee		8,634
Miscellaneous medical service income		90
Other income		-
Total revenue		487,444

Then he collected the information on expenses. Using a bookkeeping system it had put in at the beginning of 2007, he determined that the clinic had purchased supplies and medicines specific to patients in the amount of birr 76,230. He also determined that salaries for staff focused on service to patients amounted to birr 175,300.

Using monthly statements he was able to complete a list of other expenses.

Salary and wages—General clinic management	32,500
Allowances	1,950
Severance and compensation	2,100
Sanitary and other supplies	11,120
Office and shop rent	49,500
Communication expenses	12,030
Utilities	5,345
License fees	817
Repair and maintenance for furniture and the office	3,200
Professional fees	6,550
Equipment rentals	1,800
Other expenses	4,450
Uniforms	1,200
Transport charges	3,000
Depreciation	7,688
Total	143,250

Complete the income statement for the Highpoint Clinic.

Highpoint Clinic	
Income statement	
For the year ended 31 December 2007	
REVENUE	Dec-07
Medical service income	
Other income	
Total revenue	
COST OF SALES	
Medical and lab supplies	
Direct labor of clinic	
Total cost of sales	
GROSS PROFIT	
GENERAL AND ADMINISTRATIVE EXPENSES	
NET INCOME BEFORE TAX	
Profit tax—30%	
NET INCOME AFTER TAX	

MEASURING CHANGE IN PROFITABILITY

The income statement is a financial tool used to understand how profitable a business is during a period of time. For a business owner to use this information to his or her advantage, it is useful to compare the change in a clinic's profitability over a period of time.

Calculating the percentage change of revenue and expenses between two income statements helps business owners compare business operations from two different time periods. This assessment is a first step in financial analysis.

To understand the change in a business' profitability between two time periods there is a simple formula:

Difference in birr between the periods (revenue or expense) / Amount in the earliest time period	The % change in revenue or expenses between two time periods

For example if the total revenue for period A is 20,000 and period B is 18,000, you can calculate the percentage change for this period.

It would equal (20,000 – 18,000)/20,000. Or 2,000/20,000 = 10%.

Exercise: Calculate the Percentage Change of Revenue and Expenses to Compare Income Statements for Two Years

Here are the results of Highpoint Clinic's income statement for 2006 and 2007.

1. Calculate the percentage change for revenue and expenses from 2006 and 2007.
2. Identify any significant changes. Why might they be happening?

Highpoint Clinic
Income statement
For the years ended 31 December 2006 and 31 December 2007

			Birr Change	Percentage Change
REVENUE	Dec-07	Dec-06		
Medical service income	487,444	402,685	*84,759*	
Other income				
Total revenue	487,444	402,685	*84,759*	
COST OF SALES				
Medical and lab supplies	76,230	59,602	*16,628*	
Direct labor of clinic	175,300	132,450	*42,850*	
Total cost of sales	251,530	192,052	*59,478*	
GROSS PROFIT	235,914	210,633	*25,281*	
GENERAL AND ADMINISTRATIVE EXPENSES	143,250	136,903	*6,347*	
NET INCOME BEFORE TAX	92,664	73,730	*18,934*	
Profit tax	27,799	22,119	*5,680*	
NET INCOME AFTER TAX	64,865	51,611	*13,254*	

Another approach to measure profitability is to look at the percentage of cost (expense) it takes to generate a birr of revenue.

This percentage can be analyzed for one time period—these numbers will help you understand the percentage of the cost compared to the revenue generated for the time period. During this analysis it is important to think about the percentage of the cost to revenue and compare this information to other percentage costs.

A second level of analysis is to examine the percentage change between two time periods. This information will alert you to changes in expense accounts over time.

The formula is

Expense / Total revenue	How much you spend on the expense to generate one birr in revenue

Exercise: Calculate the Percentage of Cost (Expense) to Revenue

1. Use the following chart to calculate the cost-to-revenue ratio for 2006.
2. After completing the calculation, sit with the other members of your group and analyze the difference between the two years.
3. What are the significant changes? Why might they be happening?

Highpoint Clinic
Income statement
For the years ended 31 December 2006 and 31 December 2007

		Cost to revenue		Cost to revenue
REVENUE	Dec-07		Dec-06	
Medical service income	487,444		402,685	
Other income				
Total revenue	487,444		402,685	
COST OF SALES				
Medical and lab supplies	76,230		59,602	
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NET INCOME AFTER TAX	64,865		51,611	

C. The Balance Sheet

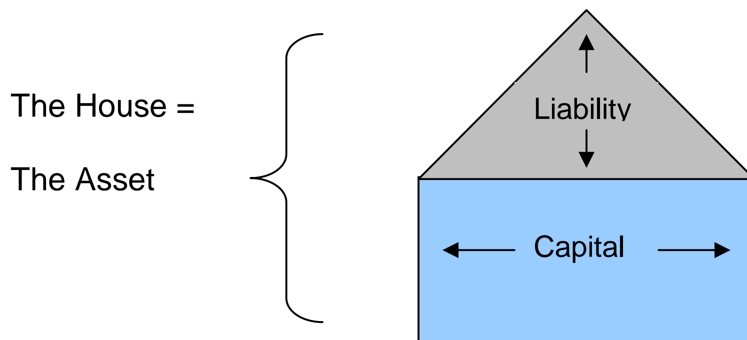
The **balance sheet** presents a summary of everything a business has, owns, and owes at a point in time. It is like a photograph of the financial state of an enterprise **on a particular date**, often the end of the fiscal year. A balance sheet always balances, which means that assets equal the sum of liabilities plus capital.

Balance Sheet Introduction

Assets = Liabilities + Capital

This formula means the business' assets, or the means used to operate the company, are balanced by a company's financial obligations (liabilities) along with the capital brought into the company and its retained earnings.

Take the example of a house:



In accounting terms, the house represents the assets (what you have)—it is funded partly by your own money, called capital, and partly by loans or other peoples' money (which you will have to pay back), called liabilities. At this point in time you have the house, although in reality you own it only in part—until the time you pay back the people who lent you the money you used to finance it.

The balance sheet is a picture of a business at one point in time, on a specific day.

Balance Sheet Format

ASSETS	LIABILITIES
	CAPITAL
TOTAL ASSETS	LIABILITIES + CAPITAL

Assets

The resources of a business are called assets. They have value because they can be exchanged for other goods or services, sold, or used productively to generate revenue. If you have birr 1,000, it is an asset because you can use it to buy food. If you have 20 doses of antibiotics, they also are assets because eventually you will sell them to make a profit.

Assets include

- cash on hand
- cash in the bank
- accounts receivable—money customers owe for services already rendered or products sold
- prepaid expenses
- staff debtors
- inventories—products purchased to resell
- supplies—materials necessary for rendering services
- equipment
- building
- land

Assets represent how funds are used

An asset enables a business to carry out its activities, which in turn generate cash. For example, a bed in a clinic will enable a doctor to perform regular check-ups and allow patients recovery time after a procedure, services which will bring income. Therefore, the asset represents an investment for the future receipt of cash.

Current and Fixed Assets

Assets are what a business has and can be short term (current) or long term (fixed).

Examples of Assets:

Current assets = assets that will be converted into cash in the normal course of business within the next 12 months:

- Cash and bank current accounts (a.k.a. cash accounts): All money available to the business on demand, such as cash and funds on deposit in non-interest bearing accounts

- Interest-bearing deposits: Funds on deposit with a financial institution with a term of less than one year that earn interest income for the business

- Accounts receivable: Amounts owed to a business for services already rendered that a customer is to pay within a short period of time; also advances paid to staff who have not paid back the clinic

- Supplies: Materials that are used and needed in the course of delivering services but that clients do not purchase directly

- Stock: Also called inventory, the value of products that will be sold to customers, assessed at the price for which they were purchased

- Other current assets: Accrued interest (interest that has accumulated in previous periods) and prepaid expenses (for example, rent and insurance)

Fixed asset = Long-term tangible property that a firm owns and uses in the production of its income and is not expected to be consumed or converted into cash any sooner than at least one year's time. It usually includes equipment, furniture, buildings, and land.

- Equipment and property = Cost – Accumulated depreciation and amortization

- Cost: Market value of the property

- Other: Term deposits

Total assets = Total current assets + Total fixed assets

Liabilities

Liabilities are what a business owes to others in the form of cash commitments. These are debts that remain outstanding as of the date on the balance sheet. Liabilities are also grouped into current and long-term. Current ones must be repaid within the next 12 months; for long-term ones, payment is due after 12 months.

- Accounts payable: A business incurs a liability when it buys services or products for its operations and agrees to pay cash at a later date. These are called accounts payable. If a business borrows money, it incurs an obligation to repay the loan, called a loan payable.
- Short-term loans: Outstanding amounts that a business owes to banks or other lenders that are due within one year.
- Long-term debt: Loans due in more than 12 months.

"Liabilities, such as loans, are an important source of funds for assets."

Capital

Capital also is referred to as equity or net worth.

Capital = Assets – Liabilities = What a business owns

Capital does not have to be repaid. Therefore it represents the value of a business. Capital is comprised of four elements:

- Contributions and investments from owners: Amount in cash and non-cash contributions the proprietor has made of his or her own resources
- Accumulated profit or loss from business activities from the start of the business: Amount that has been reinvested or taken out of a business as a result of profit and loss
- Profit or loss from business activities that appears in the income statement for current period: Amount of income generated or lost in the current year
- Withdrawals from business for personal use: Amount of cash taken from the business for personal use

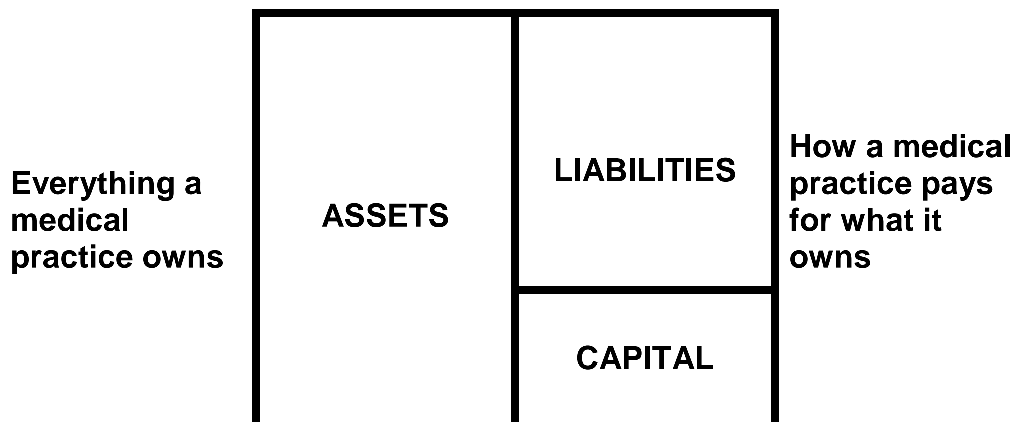
The net result from the income statement flows into the capital section of the balance sheet every year. Capital is therefore the link between the income statement and the balance sheet.

> *"A business largely financed by debt will have a high liability compared to capital. This situation may make bankers worry about the ability of the business to pay its debts."*

Strong capital is an essential component in building a business that will survive and grow.

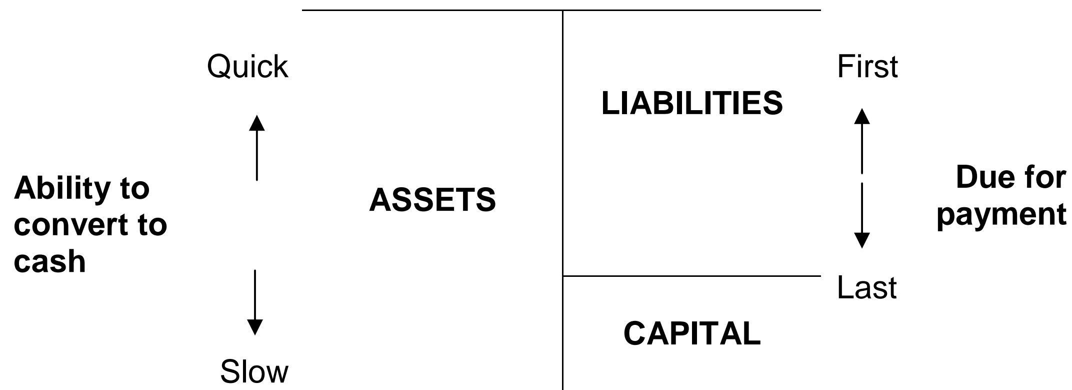
Completing a Balance Sheet

There are two sides to a balance sheet. On the left side is everything a medical practice owns. On the right side is how a medical practice pays for everything it owns.



The assets on the left side of the balance sheet are listed in order of how quickly they can be converted into cash.

The liabilities on the right side of the balance sheet are listed in order of how soon they must be paid.



PSP-Ethiopia

Standard Balance Sheet Template

CARING CLINIC BALANCE SHEET As of (DATE)		
	ASSETS	
1.	a) Cash on hand	
	b) Cash in bank	
2.	Receivables:	
	a) Accounts	
	b) Notes	
3.	Goods in stock	
4.	**Total current Assets (1–3)**	
5.	Machinery and equipment	
6.	Motor vehicles	
7.	Office furniture	
8.	Buildings	
9.	Other assets	
10.	**Total fixed assets (5–9)**	
11.	**TOTAL ASSETS (4 + 10)**	
	LIABILITIES	
12.	Payable	
	a) Accounts	
	b) Notes	
13.	Tax payable	
14.	Bank notes	
15.	Current portion of long-term debt	
16.	Other liabilities	
17.	**Total current liabilities (12–17)**	
18.	Long-term debt	
19.	Capital and reserve	
20.	**Total liabilities and capital (17–19)**	

Exercise: Dr. Abich's Balance Sheet

Dr. Abich has been operating his clinic and business for seven years. The following information summarizes what the business looked like for the year ending December 31, 2006.

1. During the year Dr. Abich purchased an ultrasound machine from a local supplier. As he did not have enough money to purchase the equipment at the time, he worked out a deal with the vendor. Dr. Abich made an initial personal investment of birr 20,000. The vendor is letting him pay the balance as a short-term loan. The outstanding amount is 30,000.

2. Dr. Abich has birr 10,000 cash in the bank.

3. A local company that has a credit contract with the clinic owes birr 3,500 for services rendered.

4. Profit tax to be paid is birr 11,700.

5. The clinic needs to pay suppliers a total of birr 14,000 for supplies purchased. The suppliers will be paid on January 15, 2007.

6. The medical clinic has supplies on hand valued at birr 2,500 to be used during the next month.

7. There are a variety of stocks for sale (such as immunizations, products, and other medicines) during the next month amounting to birr 4,200.

8. The total amount of medical equipment the business has is valued at birr 105,000. This figure includes the ultrasound equipment.

9. Net income for the year amounted to birr 39,000.

10. Dr. Abich withdrew birr 10,000 from the business during the year for personal use.

11. Last year the clinic's net profit was birr 20,500.

BALANCE SHEET

Date: December 31, 2006

ASSETS		LIABILITIES	
Current assets		**Current liabilities**	
Cash Accounts receivable Inventory and stocks Supplies		Short-term loans Accounts payable Tax payable	
Other current assets			
Subtotal current assets		**Subtotal current liabilities**	
Fixed assets		**Long-term liabilities** Long term loan	
Equipment (cost) Buildings Land		**Subtotal long-term liabilities**	
		TOTAL LIABILITIES	
		CAPITAL	
Subtotal fixed assets		Contributions from owner Previous years' accumulated profit/loss Current year profit/loss Withdrawals for personal use	
		TOTAL CAPITAL	
TOTAL ASSETS		**TOTAL LIABILITIES + TOTAL CAPITAL**	

Quick Ways to Interpret the Balance Sheet

With a greater understanding of the balance sheet and how it is constructed, we can look now at techniques to analyze the information it contains. The main way this analysis is done is through financial ratios.

For the balance sheet, financial ratios can show you a better idea of a company's financial condition along with its operational efficiency.

The main types of ratios that use information from the balance sheet are financial solvency (financial strength) and liquidity (activity) ratios.

Financial-strength ratios, such as debt-to-equity, provide information on how well a company can meet its obligations and how they are leveraged. This information can give investors an idea of how financially stable the company is and how the company finances itself.

Activity ratios, such as the current ratio and quick ratio, focus mainly on current accounts to show how well a company manages its operating cycle (which include receivables, inventory, and payables). These ratios can provide insight into the operational efficiency of a company.

Current Ratio

The current ratio is a liquidity or activity-measuring ratio. It mainly is used to give an idea of a company's ability to pay back its short-term liabilities (debt and payables) with its short-term assets (cash, inventory, and receivables).

The higher the current ratio, the more capable the company is of paying its obligations. A ratio less than 1 suggests that the company would be unable to pay off its obligations if they came due at that point. While this figure shows the company is not in good financial health, it does not necessarily mean that it will go bankrupt, as there are many ways to access financing. But it is not a good sign.

The current ratio can give a sense of the efficiency of a company's operating cycle or its ability to turn its products into cash. Companies that have trouble getting paid for their receivables or have long inventory turnover can run into liquidity problems because they are unable to alleviate their obligations.

Current assets / Current liabilities	The current ratio reveals a businesses' ability to meet its current obligations

Quick Ratio

The quick ratio is a liquidity or activity ratio. It is an indicator of a company's short-term liquidity. The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets.

The higher the quick ratio, the better the position of the company.

The quick ratio is more conservative than the current ratio, a better-known liquidity measure, because it excludes inventory from current assets. Inventory is excluded because some companies have difficulty turning their inventory into cash. In the event that short-term obligations need to be paid immediately, the current ratio might overestimate a company's short-term financial strength

Formula	Description
Current assets – Inventories / Short-term liabilities	Specifies whether current assets that could be converted quickly into cash are sufficient to cover current liabilities (If all sales revenues should disappear, could the business meet the current obligations with cash on hand and/ easily converted assets?)

Debt-to-Equity/Capital

Debt-to-equity is a ratio that measures the financial strength of a company. Debt-to-equity compares a company's total liabilities to its total capital. This ratio is a measurement of how much suppliers, lenders, creditors, and obligors have committed to the company versus what the shareholders.

To a large degree, the debt-to-equity ratio provides a vantage point on a company's leverage position, in this case, comparing total liabilities to shareholders' equity. A lower percentage means that a company is using less leverage and has a stronger equity position.

Formula	Description
Total liabilities / Total capital	A high ratio means that most of a business was paid for by its creditors. A low ratio indicates shareholders have financed most of its assets. A ratio greater than 2:1 is considered risky.

Exercise: **Calculate and Interpret Balance Sheet Ratios**

Use the balance sheets for Dr. Haile's clinic and Dr. Abich's clinic.

1. Calculate the three financial ratios for the two balance sheets.
2. Determine which business would be able to keep operating if patients could not pay for a few weeks.
3. Determine which business would be able to keep operating if there were a long delay in receiving payments from accounts receivable.
4. Determine which business would have a problem if liabilities became due tomorrow.
5. If you were a lender or banker, which business would you lend money to and why?

Dr. Haile's Balance Sheet

ASSETS	
Current assets	
Cash	2,000
Accounts receivable	2,000
Interest-bearing deposits	
Inventory and stocks	3,750
Supplies	3,500
Other current assets	
A. Subtotal current assets	**11,250**
Fixed assets	
Equipment (cost)	165,000
Building(s)	
Land	
B. Subtotal fixed assets	**165,000**
TOTAL ASSETS (A + B)	**176,250**

LIABILITIES	
Current liabilities	
Short-term loans	
Accounts payable	4,100
C. Subtotal current liabilities	4,100
Long-term liabilities	
Long-term debt	
D. Subtotal long-term liabilities	0
E. TOTAL LIABILITIES (C + D)	**4,100**
CAPITAL	
Contributions from owner	30,000
Previous years' accumulated profit/loss	127,150
Current year profit/loss	30,000
Withdrawals for personal use	(15,000)
F. TOTAL CAPITAL	**172,150**
TOTAL LIABILITIES + CAPITAL (E + F)	**176,250**

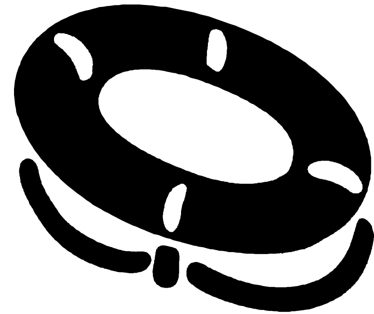
PSP-Ethiopia

Dr. Haile's Balance Sheet Ratios			
		Calculation	Ratio
Current ratio	Current assets / Current liabilities		
Quick ratio	Current assets – inventories / Current liabilities		
Debt-to-equity ratio	Total liabilities / Capital		
Dr. Abich's Balance Sheet Ratios			
		Calculation	Ratio
Current ratio	Current assets / Current liabilities		
Quick ratio	Current assets – inventories / Current liabilities		
Debt-to-equity ratio	Total liabilities / Capital		

D. Cash Flow

Cash flow answers important questions about whether you will be able to pay your bills on time and when you will have enough funds to make loan payments.

Cash Flow Keeps a Business Afloat!



Cash flow measures how money comes into a business as compared to how it goes out of a business.

Cash flow is a measure of the amount of money a business makes and spends during a given period and is used as a barometer of a business's health and worth.

The Cash Flow Statement versus the Cash Flow Projection

A **cash flow statement** shows how cash has flowed into and out of a business. It describes the cash inflow and the cash outflow that has occurred in the past, during a given period of time. This information can be found in the business's accounting tools, such as the cash book or ledger. It also is found by looking at changes in the different accounts of the balance sheet over past periods.

It is important for a business owner to be aware of how cash flows into and out of the business to monitor if there is enough cash available to pay future obligations. Remember cash runs the business.

The **cash flow projection** shows the cash that is **anticipated** to be generated or expended over a future period of time. It is an important tool for cash flow management. Using information from the cash flow statement and knowledge of the environment in which you are operating, you can create and use a cash flow projection to plan for the future.

The cash flow projection is an important tool, as it helps the business owner anticipate

- borrowing needs
- the timing of new hires and major purchases
- the timing of payables
- product pricing and the amount of credit granted to suppliers
- the need to make strategic cost-reduction decisions

For a bank loan officer, the cash flow projection offers evidence that a business is a good credit risk and that there will be enough cash on hand to make it a good candidate for a loan.

The first part of cash flow is **cash in**—how much money comes into a business. What are possible sources for cash coming into a business?

The second part of cash flow is **cash out**—how much money goes out of a business. What are possible purposes for cash to go out of a business?

To determine cash flow, take the cash in and subtract from that the cash out. In contrast to the income statement, where the net result could be positive or negative, cash flow should always be positive. You cannot pay out more cash than you have in the business in a period of time.

CASH IN

- **Cash at the start of the month (beginning balance):** This cash is what was left in a business from the previous month. This money is in the cash box or bank; therefore it is carried forward from one month to the next.
- **Cash from owner:** Cash the proprietor contributes to a business
- **Cash from debtors:** This type of cash in is from people owing a business money. Commonly this payment is cash from customers for previous credit sales.
- **Cash in from services:** Cash payments received for services delivered (also includes goods sold)
- **Cash loan received:** Money lent to a business from all sources
- **Other cash in:** Sometime cash comes into a business from unexpected or unusual sources. For instance, if you decide to purchase a desk and sell your old one, the money from the sale of the old desk is not a sale in the normal sense of your business's operations, but it is cash in. Technically, it would be considered "cash from the sale of an asset" in accounting terms.
- **Total cash in**: The sum of the previous items

CASH OUT

- **Cash out for investment:** Money spent to construct a new site or buy equipment and furniture

- **Cash out for labor costs:** All the money a business spends on salaries and wages of the people directly engaged in offering services
- **Cash out for material costs:** The costs of all materials purchased for use in providing services, such as drugs, syringes, cotton wool, and gloves
- **Cash out for operations:** Other costs incurred in running a business, including rent, electricity, water, stationary, and travel
- **Loan principal repaid:** The principal portion of a loan that will be paid back each month to repay money lent
- **Loan interest repaid:** The cost of a loan paid back every month to the individual or institution that lent the money; it is based on the amount of money received and the interest rate
- **Other cash out:** Money paid out of a business that does not fall in the previous categories, examples include association dues, training fees, and savings
- **Total cash out**: The sum of the previous items

Exercise: Dr. Abich's Cash Flow Projection, Part 1

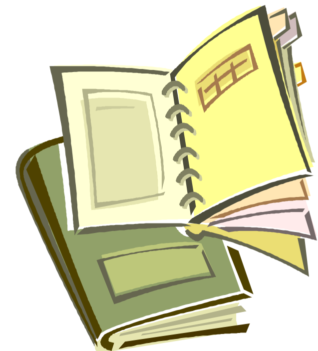
Project the cash flow for the following months based on these assumptions.

Starting Balance: Dr. Abich begins month 7 with a cash balance of birr 12,031.

Dr. Abich will begin to administer TB screening and treatment during month 7. He anticipates that he will see at least 10 additional clients because of this new service. With consultation and lab fees he believes cash from services will increase approximately birr 1,200 for month 7. Rent of birr 11,000 is due in month 7. Rent is paid once every six months.

For months 8 and 9, Dr. Abich expects that cash from services also will see an increase due to the new service. He projects that for these two months cash from services will increase the same as month 7, by approximately birr 1,200. Furthermore he believes that from the beginning of month 8 cash from services will see an additional increase due to it being the beginning of the malarial season. In the past during this time revenues from treatment of malaria are birr 800 a month.

Beginning in month 7 the monthly salary expense will increase to birr 20,600 as he hired an additional nurse because one of the nurses will be responsible for TB administration.



Because the collection of accounts receivables has been inconsistent, Dr. Abich and an office employee are planning a big effort to make sure they are collected on time. He anticipates that on average they will collect birr 2,200 a month going forward.

During month 7 cash out for materials will increase due to increased supplies for malaria screening and treatment. Dr. Abich thinks birr 7,900 a month for months 7, 8, and 9 is adequate.

After reviewing the cash flow statement for the past six months Dr. Abich is concerned about the amount of cash out for miscellaneous expenses. With his staff he is working hard to minimize these outflows to birr 1,500 a month for the following six months.

How is the projected cash flow affected by the end of month 9?

	Cash flow statement						Cash flow projection					
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
A. Beginning balance	10,450	280	1,070	1,950	4,990	7,819						
B. Cash in												
Cash from owner												
Cash from debtors	2,130	6,120	2630	2340	2105	2305						
Cash from services	25,300	28840	31040	31545	31890	32890						
Cash from loan												
Other												
C. Total cash in (A + B)	37,880	35,240	34,740	35,835	38,985	43,014						
D. Cash out												
Cash out for investment		4500										
Cash out for labor	19500	19500	19500	19500	19500	19500						
Cash out for materials	5,870	5600	9870	6240	7892	7600						
Cash out for operations	12230	1530	1720	3210	2100	1908						
Taxes												
Loan repayment												
Other		3040	1700	1895	1674	1975						
E. Total cash out	37600	34170	32790	30845	31166	30983						
F. Cash end of period (C – E)	280	1,070	1,950	4,990	7,819	12,031						
G. Funds for family												
H. Cash end of period (F – G) Becomes beginning balance for next period	280	1,070	1,950	4,990	7,819	12,031						

Exercise: Dr. Abich's Cash Flow Projection, Part 2

Project the cash flow for the following months based on these assumptions.

Dr. Abich is planning to purchase storage facilities to accommodate an increase in materials. The cabinets he would like to buy cost birr 1600. It is important that he purchase them in month 10, as between the increase of patients and medical materials he is running out of space to store supplies.

Dr. Abich believes that between the increase of patients for TB-related services and the potential of additional clients for malaria treatment, revenue will increase by 2 percent per month for months 10, 11, and 12.

With the increase of patients and revenue, he believes that cash out for materials also will increase slightly. And he thinks he will plan for birr 8,000 of materials for the following three months.

When you have completed Dr. Abich's cash flow projection, answer the following questions.

1. Rent of birr 11,000 is due at the beginning of the next month. Will Dr. Abich have enough cash flow to pay the rent?

2. Based on your experience of creating this cash flow projection, identify a list of issues that could affect the inflow or outflow of cash.

3. What are some rules or ideas that will be helpful when creating a cash flow projection?

Interpreting the Cash Flow Projection

There are two results a cash flow projection can give: positive cash at the end of the projection period or negative cash. This information will help you plan and better understand your business.

More cash at the end of the week or month may mean you can

- investment with financial institutions to earn interest
- purchase equipment
- increase stocks purchases to take advantage of discounts
- hire additional staff

Less or negative cash at the end of the month may mean

- borrowing money
- applying for a loan to sustain business operations
- improving collections of receivables
- reviewing products and services pricing
- review advertising and promotion strategies to increase sales

What affects cash flow?

The following factors affect the expenses a business incurs on a monthly basis.

Changes in sales
If a business is seasonal, for instance it experiences increased numbers of births in August and September, the sales volume and income earned from sales will not be the same each month. This situation will affect cash in and, therefore, the overall cash flow.

Bulk purchases
Sometimes purchasing materials in bulk decreases costs. If materials are bought for several months at a time, a business might be able to decrease its overall materials expense. To do so though, a business needs to have the cash flow to purchase all of these materials at once. Bulk purchases will affect cash out by making some months heavy with expenses while other months are light.

Purchases and sales made on credit
If supplies are purchased on credit, then cash flow will be affected positively. Even though the supplies or inventory are available to use and sell, they have not been paid for. So cash was saved that period.

Sales made on credit affect cash flow negatively. Even though the sale was made and can be recorded as income, that cash is not available for expenses and other purposes.