

Budget Analysis of Colonoscopy Procedure

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For my budget analysis, I chose to study the profit margin of a colonoscopy procedure, per day, month, and year. It was difficult finding the actual value of a lot of items such as IV start kits plus the IV catheter and IV fluids all adding to an average of \$10.50 (Bound Tree, n.d.; Bernstein, 2013). I then looked at the average salary of an Endoscopy RN on ZipRecruiter.com (n.d.) which was an annual salary of \$97,560 and hourly rate of \$46. The average cost of procedures was estimated to be \$12.16; between the general tissue collection supplies and the scope processing equipment (Savarise, 2016; Google.com, n.d.). Yang et al. (2016) did a study looking at metrics on an endoscopy unit which is where I found the average procedures per room per day which came out to 4.5 procedures per room which I felt was accurate considering cases per day may range for 5 to 30+. Average cost of sedation is a huge range from \$0 for people who receive no sedation, and upwards of \$4,000 for propofol and an Anesthesiologist. I chose the lower end of average being \$600 which I found on the Reuters Health website (Brooks, 2013). An article by Sawhney et al. (2018) discussed the price difference between the optical colonoscopy screening and utilizing a CT scanner which is where I found the average cost of the procedure that is billed to the insurance. I wasn't sure how to fit in the cost for the provider performing the procedure and from what I remember when I was involved in the billing process, this wasn't a part of the bill and all of the profits went to the hospital where they paid the providers out.

From what I have learned; colonoscopy procedures turn a large profit. According to the American Cancer Society (2021), it is required by law for insurance to cover colorectal screening tests under the Affordable Care Act as this procedure is recommended by the U.S. Preventive Services Task Force. Aside from the co-payment which varies per insurance company, the insurance companies will pay for the procedure costs. I used my insurance Company Blue Cross Blue Shield (n.d.) for an estimated co-payment for this procedure which was \$50.

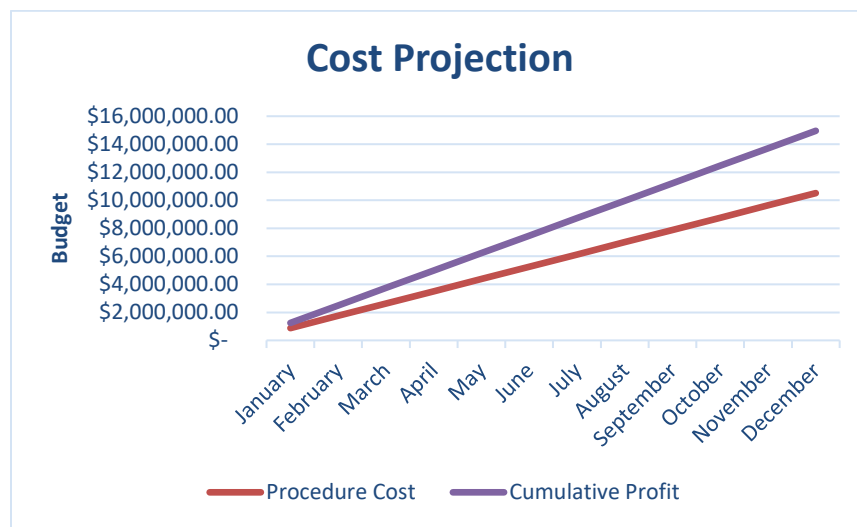
Expenses					
Description	Date	Amount	QTY	Total	Balance
IV Insertion	9/2/2021	\$ 8.00	1	\$ 8.00	\$ 8.00
IV Fluids	9/2/2021	\$ 2.50	1	\$ 2.50	\$ 10.50
Sedation	9/2/2021	\$ 600.00	1	\$ 600.00	\$ 610.50
Procedure Room	9/2/2021	\$ 469.99	1	\$ 469.99	\$ 1,080.49
Nursing Hours	9/2/2021	\$ 46.00	2	\$ 92.00	\$ 1,172.49
Tech Hours	9/2/2021	\$ 16.00	0.5	\$ 8.00	\$ 1,180.49
Procedure Supplies	9/2/2021	\$ 12.16	1	\$ 12.16	\$ 1,192.65

Income					
Description	Date	Amount	QTY	Total	Balance
Co-payment	9/2/2021	\$ 50.00	1	\$ 50.00	\$ 50.00
Insurance Payment	9/2/2021	\$ 1,983.00	1	\$ 1,983.00	\$ 2,033.00
Average Bill to Insurance	Net Profit (Bill – Balance)				
\$2,033.00	\$840.35				

Cost of Procedure	Procedure Rooms	Average per room	Cost Per Day	Cost Per Month (22average business days)	Cost Per Year
\$1,990.65	4	5	\$39,813.00	\$875,886.00	\$10,510,632.00

Net Profit Per Procedure	Procedures Per Day	Profit Per Day	Profit Per Month	Profit Per Year
\$842.35	20	\$16,847.00	\$370,634.00	\$4,447,608.00

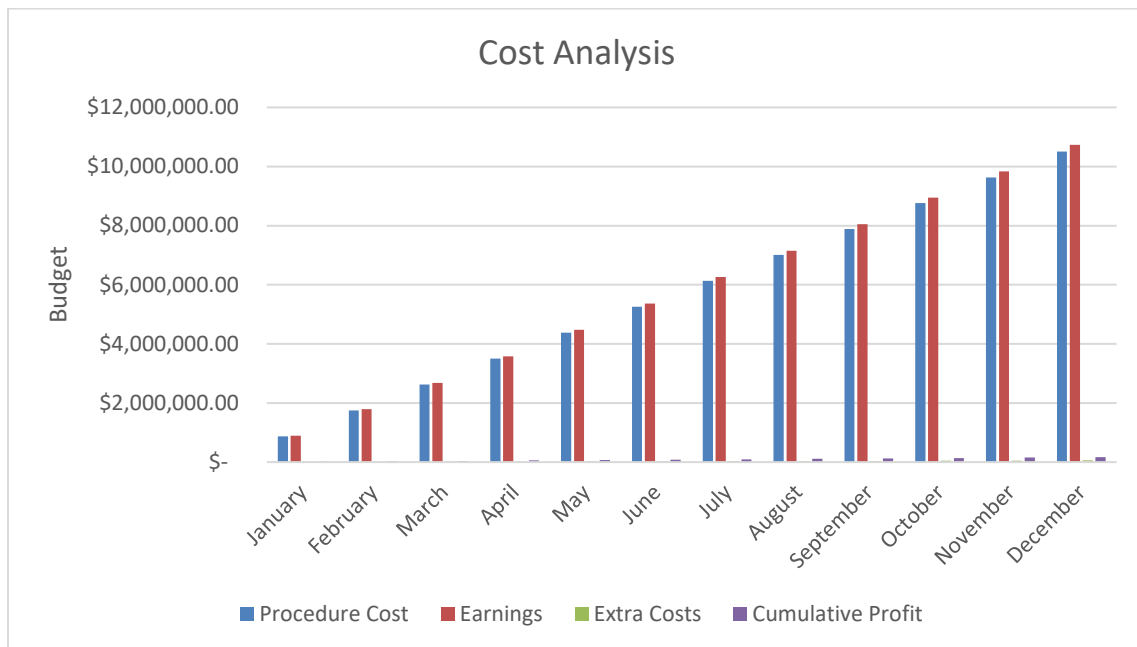
	Procedure Cost	Cumulative Profit
January	\$ 875,886.00	\$ 370,634.00
February	\$ 1,751,772.00	\$ 741,268.00
March	\$ 2,627,658.00	\$ 1,111,902.00
April	\$ 3,503,544.00	\$ 1,482,536.00
May	\$ 4,379,430.00	\$ 1,853,170.00
June	\$ 5,255,316.00	\$ 2,223,804.00
July	\$ 6,131,202.00	\$ 2,594,438.00
August	\$ 7,007,088.00	\$ 2,965,072.00
September	\$ 7,882,974.00	\$ 3,335,706.00
October	\$ 8,758,860.00	\$ 3,706,340.00
November	\$ 9,634,746.00	\$ 4,076,974.00
December	\$ 10,510,632.00	\$ 4,447,608.00



According to my calculations there would be no actual cost to the hospital, and in a perfect world this would be true. But I know there are costs associated to running any nursing unit including repair fees, nursing overtime, and upgrades to equipment and software. I started with the average cost of repairing a scope which is about \$150 according to Larsen et al. (2020) and from experience scopes

need repairing about 15 times per year. I then added some other fees that would be realistic from my experience. I calculated that into my yearly budget:

	Procedure Cost	Earnings	Extra Costs	Cumulative Profit
January	\$ 875,886.00	\$ 894,520.00	\$ 4,770.83	\$ 13,863.17
February	\$ 1,751,772.00	\$ 1,789,040.00	\$ 9,541.66	\$ 27,726.34
March	\$ 2,627,658.00	\$ 2,683,560.00	\$ 14,312.49	\$ 41,589.51
April	\$ 3,503,544.00	\$ 3,578,080.00	\$ 19,083.32	\$ 55,452.68
May	\$ 4,379,430.00	\$ 4,472,600.00	\$ 23,854.15	\$ 69,315.85
June	\$ 5,255,316.00	\$ 5,367,120.00	\$ 28,624.98	\$ 83,179.02
July	\$ 6,131,202.00	\$ 6,261,640.00	\$ 33,395.81	\$ 97,042.19
August	\$ 7,007,088.00	\$ 7,156,160.00	\$ 38,166.64	\$ 110,905.36
September	\$ 7,882,974.00	\$ 8,050,680.00	\$ 42,937.47	\$ 124,768.53
October	\$ 8,758,860.00	\$ 8,945,200.00	\$ 47,708.30	\$ 138,631.70
November	\$ 9,634,746.00	\$ 9,839,720.00	\$ 52,479.13	\$ 152,494.87
December	\$ 10,510,632.00	\$ 10,734,240.00	\$ 57,249.96	\$ 166,358.04



To cover the costs of the Unit, I would say the budget for the year is procedure costs (\$10,510,632.00) plus the General costs (\$57,249.96) equaling \$10,567,882.00. Even though we will make it back and gain a profit for the hospital.

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