# Healthcare Budget Request
# Home Sputum Induction Kit and Training
# Prepared by: Ann Scarpita

## Executive Summary

Tuberculosis (TB) is an infectious disease transmitted through the air from person to person. It is the second leading infectious disease killer in the world today, only second to COVID. It's estimated that one-quarter of the world is infected with TB, and 5-10% of those people will develop TB disease, which is the infectious form of TB, and those people will go on to infect 5-15 more people (World Health Organization, 2021). It is costly and challenging to diagnose, and time is of the essence to limit further exposures. Taxpayer dollars pay for nearly all (85%) of tuberculosis's diagnosing and treatment costs (Marks et al., 2017), and roughly half (49%) of TB patients require hospitalization for the first few days to weeks of treatment (Aslam et al., 2018), not necessarily due to a physical need but rather to diagnose and start treatment. Through this healthcare budget request, I will prove that the cost savings of providing this service through our local public health agencies far surpasses the minimal start-up investment.

The diagnosis of tuberculosis disease requires three respiratory samples collected more than eight hours apart for microbiology testing. If fortunate, the patient can produce the sputum specimen through expectoration, meaning coughing up a sample from deep in their lungs without any medical intervention. If unsuccessful, a medical procedure called sputum induction is necessary, which requires a respiratory therapist or registered nurse to give the patient a nebulizer treatment to induce a productive cough. This is costly when performed in a clinic, but even more so when done in a hospital setting; unfortunately, many clinics cannot accomplish this, so it is typically done in an emergency room setting and sometimes requires hospitalization due to the need to separate each of the three collections by eight hours.

I propose creating and providing a sputum induction kit and training program to ten public health agencies to prove its usefulness before expanding to our state's remaining counties. The kit will involve standing orders, nebulizer equipment, and instructions. The tuberculosis nurse consultant will provide practicum training to participants and distribute the tool kits to take back to

their respective health agencies. We will demonstrate that we can avoid expensive clinic or hospital visits by providing this service through the local public health agencies, thus saving the taxpayers thousands of dollars.

Key stakeholders will be our tuberculosis program, public health nurses, primary care providers, the state laboratory, and the patients for whom the test is performed. Each stakeholder is vested in the process because, in the end, this streamlined process will save time, money, and frustration for everyone involved. Public health nurses will be trained to recognize when and how to administer the nebulizer treatment to induce a sputum sample. The medical director will alleviate the need to get individual medical orders for each patient from their primary care provider by providing standing orders for this medical procedure. The patients will receive the treatments as appropriate and therefore save time and money on travel expenses, resulting in a more timely diagnosis. The tuberculosis program will gain approval for funding to purchase the equipment necessary and provide the training. Our state laboratory will retain proficiency and test the submitted sputum samples.

In summary, testing for tuberculosis disease is costly and time-consuming and is paid for primarily through tax dollars. By providing the necessary tools and training to our public health agencies, we can alleviate the need for expensive clinic and hospital visits for most of our patients and, save money, time, and frustration for nurses, practitioners, and most importantly, help diagnose patients quicker thus limiting public exposure to an infectious disease.

## Projected Expenses and Revenues (Five Year)

**Analysis**

It is essential to show that this project will demonstrate financial benefits to both the investor and the participants. In this case, the investor is the State of Colorado Department of Public Health and Environment, and the participants would be the public health nurses in the chosen counties. Public health has historically been underfunded and underappreciated as a partner in our healthcare system, resulting in a population with a higher prevalence of chronic illnesses and

shorter lives, especially among those in lower-income brackets (Haseltine, 2020). There will be significant cost savings with this project, but more importantly, we will be decreasing disparities and increasing access to care for our most vulnerable population groups.

In my analysis, I showed that even when using low estimates to calculate savings, we would be able to save the department over **$225,000** over a five-year time frame. Even when considering the start-up cost of $6,028, we would save over $42,000 in the first year alone. This demonstrates an impressive 698.53% return on investment in the first year. It is important to note that this is a low estimate as it uses older cost values that indeed increased over time with inflation. Additionally, it does not include miscellaneous savings on the patient, such as drive time, lost work time, fuel or bus passes, and out-of-pocket associated healthcare costs. Even when using these low estimates and not gaining revenue from this service, I was able to show a five-year return on investment of over 1522% from projected cost savings. That means the return was far greater than the associated Cost to get this program up and running, proving this venture would be worthwhile to our department, to the local public health departments, and in the end, to the patients we serve.

Some of the more challenging costs to obtain or estimate were the current expenses of sputum induction, commercial laboratory testing, and the estimated provider time. Having worked in this field directly, I provided some realistic estimates, which were estimated at the lowest end of the spectrum. This is to show minimum savings to investors. We have funding available through our department that I can tap into, which is available for training and expanding services to high-risk and underserved individuals in our state.

Before this workgroup assignment, I had planned on having the counties be responsible for ongoing costs; however, after seeing the return on investment, I decided to continue to estimate if the department would continue providing the necessary equipment and supplies to ensure the service continues. This incredible return on investment is with that additional spending. Should the counties decide to purchase the equipment moving forward, the savings will be more

than **$2,200** higher than estimated per year. The money saved from the exorbitant cost of the hospital or clinic-provided sputum induction will be able to serve our patients in other ways, essentially expanding services that we could not afford previously.

Besides the significant cost savings, we will be bringing a much-needed service to rural and underserved areas. This service will help fill the gap due to the lack of healthcare providers and services in these areas. Many residents in these areas who live and work on ranches, reservations, and farms have to travel long distances to have these services provided, spending money on gas and typically losing wages during that time they are traveling. These costs aren't included in our analysis because I was able to show significant benefits without having those items, and they are not as easy to calculate. Perhaps our one-of-a-kind program will serve as a prototype for others around the country. We will collect more data and improve existing data to provide a more accurate return on investment. We can say for sure that by using the lowest end of the spectrum to calculate our savings, we are sure to prove a higher return on investment over time.

The last consideration is that this is a pilot, and we are starting with ten counties in Colorado out of 64 (Colorado Department of Local Affairs, 2021). The plan would be to continue to assess progress and outcomes to address any issues as they arise. Once we can be assured that the program shows the projected savings level, we can consider expanding the program to more counties around Colorado. Additionally, we can consider including more hidden cost savings from the patient's perspective.

In closing, I have demonstrated that we can increase access to quality care for our most vulnerable population groups, and we can do it with minimal investment ($17,709.09). The savings equates to more than $240,000 over its first five years. That is almost a 1259% return on investment. "Access to primary care and public health services can improve the population's health and decrease the risk of health threats such as epidemics" (Haseltine, 2020). With dwindling public health funds, we *cannot* afford **not** to invest in this project.

| ESTIMATED EXPENSES and ROI | | | | | | | |
|---|---|---|---|---|---|---|---|
| This worksheet presents the budget development for the development, launch, and maintenance of the Home Sputum Induction Kit. Also presented is a Return on Investment (ROI) analysis. | | | | | | | |
| Expenses/Cost | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Grand Total |
| Start up expenses | | | | | | | |
| OMRON NE-C801 CompAIR Compressor Nebulizer System (1 KIT/LPHA) | $235.10 | | | | | | |
| Omron Nebulizer Kit for NE-C801 Nebulizer - C801NEB | $2,044.00 | | | | | | |
| Omron Air Filters for NE-C30 and NE-C801 - 5/pk - C30FL | $37.40 | | | | | | |
| 7% Hypertonic Saline 5mL Ampoules (or ampule) preferred | $118.90 | | | | | | |
| Training/Education Estimate | $3,592.00 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| **Total start up expenses** | **$6,027.40** | | | | | | |
| | | | | | | | $ 6,027.40 |
| Operating Expenses | | | | | | | |
| Omron Nebulizer Kit for NE-C801 Nebulizer - C801NEB | | $2,044.00 | $ 2,105.32 | $ 2,168.48 | $ 2,233.53 | $ 2,300.54 | $ 10,851.87 |
| Omron Air Filters for NE-C30 and NE-C801 - 5/pk - C30FL | | $37.40 | $ 38.52 | $ 39.68 | $ 40.87 | $ 42.09 | $ 198.56 |
| 7% Hypertonic Saline 5mL Ampoules (or ampule) preferred | | $118.90 | $ 122.47 | $ 126.14 | $ 129.93 | $ 133.82 | $ 631.26 |
| **Total operating expenses** | | | | | | | |
| | | | | | | | |
| **Total Expenses** | **$6,027.40** | $ 2,200.30 | $ 2,266.31 | $ 2,334.30 | $ 2,404.33 | $ 2,476.46 | **$ 17,709.09** |
| | | | | | | | |
| Revenue/Savings | | | | | | | |
| *PHN* | | $3,900.00 | $3,900.00 | $3,900.00 | $3,900.00 | $3,900.00 | $ 19,500.00 |
| *Cost of Induction Hospital* | | $ 2,364.00 | $ 2,364.00 | $ 2,364.00 | $ 2,364.00 | $ 2,364.00 | $ 11,820.00 |
| *Provider Time* | | $11,021.88 | $11,021.88 | $11,021.88 | $11,021.88 | $11,021.88 | $ 55,109.40 |
| *Cost saving to test at State Lab vs. Commercial Lab* | | $30,846.00 | $30,846.00 | $30,846.00 | $30,846.00 | $30,846.00 | $ 154,230.00 |
| *Total Revenue/savings* | | $48,131.88 | $48,131.88 | $48,131.88 | $48,131.88 | $48,131.88 | **$ 240,659.40** |
| | | | | | | | |
| **Return on Investment** | | **2087.51%** | **2023.80%** | **1961.94%** | **1901.89%** | **1843.58%** | **1258.96%** |

# Projected Budget (Five Year)

**Budget and Analysis**

Budget analysis requires detailed and accurate projected spending and savings amounts to assess the feasibility of a proposed project and plan budgetary expenditures. Understanding how and where the money will be spent with relevancy and accuracy is essential to meet overall goals. This section analyzes the budget for a five-year projection of costs and savings to calculate the number of years it will take to pay back the initial investment. Through this detailed budget, I will prove that this project will save the department hundreds of thousands of dollars, and it will not take long to see the savings.

This project aims to purchase one compressor per participating health department and the equipment necessary to perform 30 sputum inductions per the participating health department. The

equipment is estimated to be enough for one year for each health department. The plan would be to purchase only the necessary equipment each subsequent year for the participating health departments to get through another year. We would not need to buy another compressor because those come with a five-year warranty, so if they were to fail, we could get a replacement.

To start, let's break down the start-up costs. One could separate the start-up cost into three categories: training/education, one-time purchases, and those items that would be required to be purchased annually. The budget for training and education covers the cost of the nurse trainer's salary for an eight-hour training and travel reimbursement for each of the ten participants (hotel room, reimbursement for miles, and per-diem). Training and education are 60% of the total start-up costs. The second category is the one-time compressor purchase, with a five-year warranty. We need ten compressors for each participating county, which makes up 4% of the total start-up costs. The remaining 36% of the start-up cost is the nebulizer supplies (filters, mouthpiece & tubing, and saline) which would be an annual expense because they are not multipurpose (only one set per patient).

These annual costs are related to replacing the supplies/equipment (filters, mouthpiece & tubing, and saline) needed to perform the same number of procedures annually. When breaking down the expenses for the five-year budget, the initial start-up costs represent over 34% of total expenditures. Each following year represents between 12% to 14% of the total expenditures over the five years.

When considering the total expenses and annual savings, this extremely accurate and thorough budget demonstrates that not only will there be a cash flow **surplus** of over **$222,900** in the course of five years, but it will only take 0.13 years to pay back the initial investment.

This project could not be possible without the collaboration of the public health nurses and our local public health department. With training, registered nurses have the scope of practice to perform this medical procedure. By empowering public health nurses through training and

education, we decrease health disparities, create significant savings for our health department, promote new professional skills for our public health nurses, save provider time, and create a healthier population.

In closing, this department cannot afford not to approve this proposal as it will save hundreds of thousands of dollars over the first five years of inception and will decrease health disparities in the process. Additionally, I have demonstrated through the budget that it will only take 0.13 years to pay back the initial investment. As a reminder, this is considering we are starting with only ten out of our 64 counties. As we prove its viability and benefit to the populations we serve, we can quickly expand to include other counties and further increase our savings.

## ESTIMATED EXPENSES and ROI

This worksheet presents the budget development for the development, launch, and maintenance of the Home Sputum Induction Kit.

| Expenses/Cost | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Grand Total | |
|---|---|---|---|---|---|---|---|---|
| Start up expenses | | | | | | | | % of cost or expenses |
| OMRON NE-C801 CompAIR Compressor Nebulizer System (1 KIT/LPHA) | $235.10 | | | | | | | 4% |
| Omron Nebulizer Kit for NE-C801 Nebulizer - C801NEB | $2,044.00 | | | | | | | 33.91% |
| Omron Air Filters for NE-C30 and NE-C801 - 5/pk - C30FL | $37.40 | | | | | | | 1% |
| 7% Hypertonic Saline 5mL Ampoules (or ampule) preferred | $118.90 | | | | | | | 2% |
| Training/Education Estimate | $3,592.00 | | | | | | | 60% |
| | | | | | | | | |
| **Total start up expenses** | **$6,027.40** | | | | | | | |
| | | | | | | | $ 6,027.40 | |
| Operating Expenses | | | | | | | | |
| Omron Nebulizer Kit for NE-C801 Nebulizer - C801NEB | | $2,044.00 | $ 2,105.32 | $ 2,168.48 | $ 2,233.53 | $ 2,300.54 | $ 10,851.87 | |
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| 7% Hypertonic Saline 5mL Ampoules (or ampule) preferred | | $118.90 | $ 122.47 | $ 126.14 | $ 129.93 | $ 133.82 | $ 631.26 | |
| **Total operating expenses** | | | | | | | | |
| | | | | | | | | |
| **Total Expenses** | **$6,027.40** | $ 2,200.30 | $ 2,266.31 | $ 2,334.30 | $ 2,404.33 | $ 2,476.46 | **$ 17,709.09** | |
| | | | | | | | | |
| Revenue/Savings | | | | | | | | |
| *PHN* | | $3,900.00 | $3,900.00 | $3,900.00 | $3,900.00 | $3,900.00 | $ 19,500.00 | |
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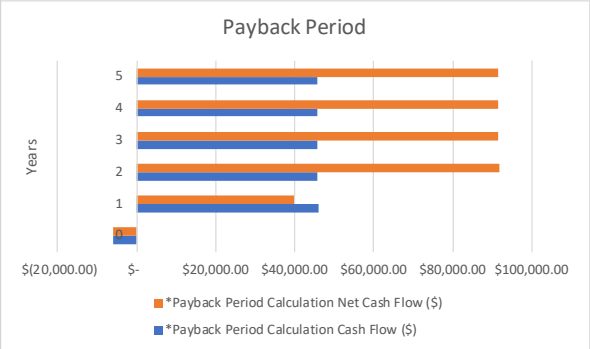
| *Provider Time* | | $ 11,021.88 | $ 11,021.88 | $ 11,021.88 | $ 11,021.88 | $ 11,021.88 | $ 55,109.40 | |
| *Cost saving to test at State Lab vs. Commercial Lab* | | $ 30,846.00 | $ 30,846.00 | $ 30,846.00 | $ 30,846.00 | $ 30,846.00 | $ 154,230.00 | |
| *Total Revenue/savings* | | $48,131.88 | $48,131.88 | $48,131.88 | $48,131.88 | $48,131.88 | **$ 240,659.40** | |
| **Cash Flow** | $ (6,027.40) | $45,931.58 | $45,865.57 | $45,797.58 | $45,727.55 | $45,655.42 | **$ 222,950.31** | |
| **Return on Investment** | | **2087.51%** | **2023.80%** | **1961.94%** | **1901.89%** | **1843.58%** | **1258.96%** | |
| **Payback Period** | 0.13 | | | | | | | |

**Would take 0.13 years to recover the initial cost of the capital expenditure.**




*Payback Period Calculation

| Year | Cash Flow ($) | Net Cash Flow ($) |
|---|---|---|
| 0 | $ (6,027.40) | $ (6,027.40) |
| 1 | $45,931.58 | $39,904.18 |
| 2 | $45,865.57 | $91,797.15 |
| 3 | $45,797.58 | $91,663.15 |
| 4 | $45,727.55 | $91,525.13 |
| 5 | $45,655.42 | $91,382.98 |

Start-Up Cost (detailed)

| Start up Cost | | | | | | |
|---|---|---|---|---|---|---|
| Item | Includes | Quantity/Kit | Amount of kits per LPHA | Total amount of kits to order | Price per Kit | Total (no tx) |
| OMRON NE-C801 CompAIR Compressor Nebulizer System (1 KIT/LPHA) | CompAir Nebulizer Compressor includes Compressor, Nebulizer Kit, Air Tube, Mouthpiece, Filters, AC Adapter, Storage Bag & Manual | 1 | 1 | 10 | 23.51 | 235.1 |
| Omron Nebulizer Kit for NE-C801 Nebulizer - C801NEB | Air tube and mouthpiece. | 1 | 10 | 100 | 20.44 | 2044 |
| Omron Air Filters for NE-C30 and NE-C801 - 5/pk - C30FL | Air filters (5) | 5 | 2 | 20 | 1.87 | 37.4 |
| 7% Hypertonic Saline 5mL Ampoules (or ampule) preferred | 30 vial box | 30 | 1 | 10 | 11.89 | 118.9 |
| **TOTAL (Supplies Only)** | | | | | | **2435.4** |

| Education/Training Cost Estimate | Reimbursement Totals (8 hour training) |
|---|---|
| Miles* | $1,474 |
| Hotel** (one night) | $1,620 |
| Per Diem Meals*** (2 days) | $152.00 |
| RN Trainer cost | $346.15 |
| **TOTAL (Travel Only)** | **$3,592** |

| | |
|---|---|
| **TOTAL (Supplies AND Travel Costs)** | **$6,028** |

## Summary of Ratio and SWOT Analysis

To help determine whether this project and the organization's investment are worthwhile, I calculated the payback period or break-even point and analyzed the strengths, weaknesses, opportunities, and threats (SWOT). This process enables us to build on our positive aspects or strengths while addressing identified vulnerabilities. I demonstrated that this project had many more strengths than weaknesses and would not only save the organization hundreds of thousands of dollars, but it would take less than 48 days to see a return on investment in respect of cost savings.

Initially, I turned my focus on calculating the return on investment. Since we are working with public health funding and are providing the service through public health, there will not be a revenue stream; therefore, a break-even analysis is *not* applicable. However, it is relevant to note that it would take 0.13 years or just shy of 48 days to pay back the initial investment. From there, we can demonstrate significant cost savings annually to the amount of hundreds of thousands of dollars over a period of just a few years. Finally, the benefit-cost ratio (BCR) is 13.59, further demonstrating that this is a good investment.

I found many more strengths and opportunities than weaknesses and threats when performing the SWOT analysis. This project is highly feasible with relatively little time, money, and effort. Additionally, registered nurses can perform this medical procedure under their scope of practice and standing orders. With this project, the service will be provided in the home and on the same day, saving the health department time and money. Typically, it can take 1-2 weeks to work through finding a provider to order the inductions, finding a facility willing to perform the induction, and arranging for this service through multiple appointments. If the patient does not have transportation, that is an additional task for the public health nurse. By reaching our patients in their own homes, we are helping to decrease disparities that exist due to transportation issues, lack of insurance or medical homes, and missed work time. This will provide the patients with the much-needed and desired service in the comfort of their home, making the diagnosing process faster and more efficient, resulting in less transmission of disease and improved patient outcomes.

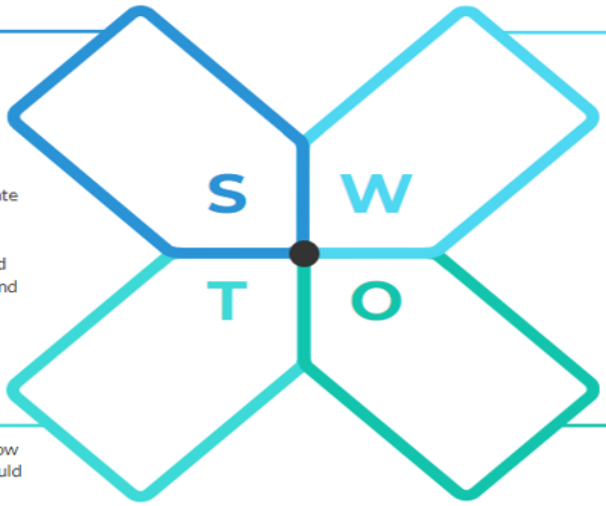
Another strength is the cost savings associated with microbiology testing. Currently, each sputum sample is sent to the commercial lab contracted by the hospital or clinic, providing the sputum induction resulting in hundreds of dollars more per patient. This cost is covered through the Colorado Tuberculosis Program. Running sputum samples through the state lab will save the taxpayers money as these services are covered under federal grants and not billed separately for each lab. Grant dollars cover testing whether they run one or hundreds of tests. When there is sufficient data to support the success of this project, there is the potential to expand the program across the state and then nationally with grant dollars through the Centers for Disease Control and Prevention and other organizations such as the American Lung Association. Using proof of concept, we hope to give the investors confidence that this is a viable, feasible, and valuable service and worth continued monetary commitment.

There are some identified weaknesses, the largest of which is staff turnover in public health, increasing the need for ongoing training to build and maintain competency. I am confident that we

can solidify additional money through federal grants to expand and cover additional training and supply needs related to staff turnover.

In closing, this is a project that we cannot afford to pass up. It will take less than 48 days to see a return on investment, after which we will see savings in the hundreds of thousands of dollars over just a few short years. Additionally, the benefit-cost ratio (BCR) is 13.59, further demonstrating that this **is** a good investment. The SWOT analysis further demonstrated the benefits of this project. There are many strengths and opportunities associated with this project and only a few weaknesses or threats, all of which are surmountable with minimal effort. This project will save our local public health partners' time, money, and effort and will help expedite testing and diagnosis for the patients we serve. This will help decrease health disparities and improve public health. Additionally, it is a novel idea and project, so the assumption is that it will indeed be used as a model for the rest of the country, reflecting well on the department and the state. In short, we cannot afford to pass up this opportunity to save significant public health dollars while increasing access to healthcare and decreasing health disparities.

# SWOT ANALYSIS




## STRENGTHS

- Within the public health nurses' scope of practice
- Same day delivery of services
- Fast and accurate results
- High-quality tests and services provided in the patient's home
- Running all samples through the state lab will save money and time
- Decrease health disparities
- Ensure faster diagnosis, which could prevent further spread of disease and save lives
- Cost-savings and return on investment is significant

## WEAKNESSES

- Relatively costly start up for a non-profit, government agency
- Public health staff turnover remains high, resulting in continual and regularly scheduled training
- Requires local public health agency buy-in
- Relying on public health nurse and local public health agency to practice with integrity and per standing order

## THREATS

- If public health nurse does not follow protocol and standing orders, it could have a poor patient outcome.
- A local public health agency may potentially ask a non-registered nurse to perform this medical procedure.

## OPPORTUNITIES

- Optimize existing standing orders and modify them for public health
- If proven successful, may expand the program throughout Colorado and eventually nationwide
- May have an opportunity to apply for federal grants to support ongoing training needs
- Likely opportunity for publishing results

| Expenses/Cost | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Grand Total | |
|---|---|---|---|---|---|---|---|---|
| Start up expenses (itemized on A3.1) | | | | | | | | % of cost or expenses |
| OMRON NE-C801 CompAIR Compressor Nebulizer System (1 KIT/LPHA) | $235.10 | | | | | | | 4% |
| Omron Nebulizer Kit for NE-C801 Nebulizer - C801NEB | $2,044.00 | | | | | | | 33.91% |
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| Training/Education Estimate | $3,592.00 | | | | | | | 60% |
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| **Total start up expenses** | **$6,027.40** | | | | | | | |
| | | | | | | | $ 6,027.40 | |
| Operating Expenses | | | | | | | | |
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| **Total operating expenses** | | | | | | | | |
| | | | | | | | | |
| **Total Expenses** | **$6,027.40** | $ 2,200.30 | $ 2,266.31 | $ 2,334.30 | $ 2,404.33 | $ 2,476.46 | **$ 17,709.09** | |
| % of total expenses | 34.04% | 12.42% | 12.80% | 13.18% | 13.58% | 13.98% | | |
| Revenue/Savings | | | | | | | | |
| *PHN* | | $3,900.00 | $3,900.00 | $3,900.00 | $3,900.00 | $3,900.00 | $ 19,500.00 | |
| *Cost of Induction Hospital* | | $ 2,364.00 | $ 2,364.00 | $ 2,364.00 | $ 2,364.00 | $ 2,364.00 | $ 11,820.00 | |
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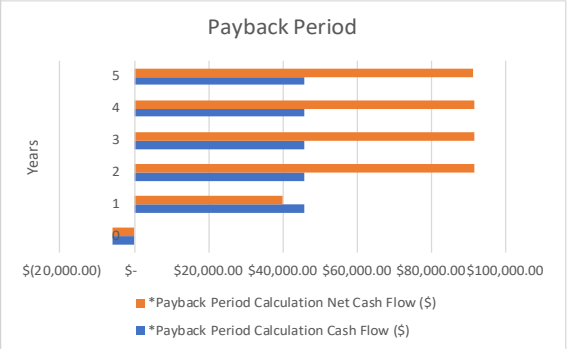
| **Cash Flow** | $(6,027.40) | $45,931.58 | $45,865.57 | $45,797.58 | $45,727.55 | $45,655.42 | **$ 222,950.31** | |
| **Return on Investment** | | **2087.51%** | **2023.80%** | **1961.94%** | **1901.89%** | **1843.58%** | **1258.96%** | |
| **Payback Period (year)** | **0.13** | | | | | | | |
| **Break-even point regardless of revenue (days)** | **47.897351** | | | | | | | |
| **Benefit-cost ratio** | **13.589596** | | | | | | | |
| **Would take 0.13 years to recover the initial cost of the capital expenditure** | | | | | | | | |




*Payback Period Calculation

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| 4 | $45,727.55 | $91,525.13 |
| 5 | $45,655.42 | $91,382.98 |

## Summary of Analyses and Interpretation of Results

Financial statement analysis is used to evaluate the financial performance of a business. It helps stakeholders or investors decide on critical budgetary decisions by analyzing the company's financial health. It is essentially a predictor of revenues and operating expenses and helps identify risks and liabilities. Providing this information to you is a necessary step in this budget proposal.

This analysis is a two-year comparison using information from HealthWays Clinic's financial statement containing data from 2017 and 2018. Operating revenue increased between 2017 and 2018, with net operating revenue of $23,095. Although operating expenses also increased, expenditure was lower than the increase in generated revenue, resulting in net earnings of $5,064, indicating organizational growth. The total percent change was 2.87%. Although this may seem like a tight budget with little room for error, this is promising information, and continued commitment to improving efficiencies will likely lead to higher net earnings and more interested investors. Additionally promising is the return on assets, which improved from 2017 (-1%) to 2018 (2%), respectively, indicating that for every dollar the company spent in 2018, it generated $2 of net income. This clinic is a financially healthy organization based on these results.

In previous sections of this proposal, I demonstrated significant cost savings for our program resulting in more than $225,000 over a few short years and an impressive 698.53% return on investment in the first year alone. I further demonstrated in the financial statement analysis that our organization is financially healthy at this time and therefore proves we can safely invest in this project now. Not only is this an opportunity to further financial, organizational growth, but we will be meeting our department's mission of protecting and improving the health of Coloradans. I highly recommend that our organization and program approve this project and budget proposal and further add that with depleting public health funding, it is in our **best** interest for continued financial health that you support this budget proposal.

**Nurse-Run Clinic Scenario**

| Patient Encounters | FY 2018 | FY 2017 |
|---|---|---|
| Established patients | 3,348 | 3,204 |
| New patients | 331 | 287 |
| **Total Encounters** | **3,679** | **3,491** |
| | | |
| Cash | $5,675 | $12,098 |

**Financial Ratios:**

Expense per Encounter = Total Operating Expenses / Total Encounters

Total Operating Revenue per Encounter = Total Operating Revenue / Total Encounters

Operating Margin = Net Income/Total Operating Revenue

Days Cash On Hand = (Cash + Cash Equivalents) / (Operating Expenses / Days in Time Period)

**Table 2. HealthWays Clinic, Income Statement, FY 2018.**

| | FY 2018 | FY 2017 | Change in Revenue |
|---|---|---|---|
| Gross Revenue (charges) | $558,520 | $497,221 | |
| Less write-offs & adjustments | 117,254 | 104,332 | |
| Net Patient Revenue (collected) | $441,266 | $392,889 | |
| +Other Revenue | 209,671 | 234,953 | |
| | | | |
| **Total Operating Revenue** | **$ 650,937** | **$ 627,842** | $ 23,095 |
| | | | |
| Operating Expenses | | | Change in Expenses |
| Salaries & Benefits | 459,171 | 445,396 | |
| Medical Supplies | 97,627 | 92,418 | |
| Office Supplies | 7,471 | 7,302 | |
| Rent & Depreciation | 39,148 | 37,023 | |
| Other | 43,762 | 47,009 | |
| | | | |
| **Total Operating Expenses** | **$ 647,179** | **$ 629,148** | $ 18,031 |
| **Percent Change** | | | 2.87% |
| | | | |
| | | | Changes in Net Earnings |
| **Net Earning** | **$ 3,758** | **($1,307)** | $ 5,064 |

| | | |
|---|---|---|
| **Return on Assets (ROA)** | 2% | -1% |

**Table 3. HealthWays Clinic, Balance Sheet, December 31, 2018.**

| Current Assets | December 31, 2018 | December 31, 2017 |
|---|---|---|
| Cash | 5,032 | 9,877 |
| Short-term Investments | 40,389 | 34,181 |
| Accounts Receivable | 63,392 | 59,359 |
| Supply Inventories, at Cost | 16,029 | 14,918 |
| Prepaid Expenses & Other | 2,104 | 1,876 |
| **Total Current Assets** | **$ 126,946** | **$ 120,211** |
| | | |
| **Property, Plant & Equipment (Fixed Assets)** | | |
| Cost of PP&E | 56,047 | 55,701 |
| Less Accumulated Depreciation | 4,194 | 3,943 |
| **Net PP&E (Net Fixed Assets)** | **$ 51,853** | **$ 51,758** |
| Other Assets | $ 1,289 | 1289 |
| | | |
| **Total Assets** | **$ 180,088** | **$ 173,258** |

| Current Li | December 31, 2018 | December 31, 2017 |
|---|---|---|
| Notes Pa | 27,449 | 50,000 |
| Accounts | 78,702 | 69,412 |
| Accrued Expenses: | | |
| Salarie | 38,265 | 28,274 |
| Taxes | 1,419 | 1,398 |
| Interes | 3,294 | 500 |
| **Total Curr** | **$ 149,129** | **$ 149,584** |
| | | |
| **Long-Term** | **$0** | **$0** |
| | | |
| **Net Assets** | | |
| Unrestric | 28,541 | 20,569 |
| Restricte | 2,418 | 3,105 |
| | | |
| **Total Net Assets** | **$ 30,959** | **$ 23,674** |
| | | |
| **Total Liabi** | **$ 180,088** | **$ 173,258** |

**Financial Reports: Quick Tips for Interpretation**

- income statement: positive net income indicates profitability
- balance sheet: positive equity indicates that there is a positive net worth, representing the amount remaining if an institution went bankrupt and had to liquidate
- compare changes in reports from prior year(s) to identify trends in financial performance, and with industry standards or internal benchmarks.

| Financial Ratios | FY 2018 | FY 2017 |
|---|---|---|
| Expense per Encounter | $ 175.91 | $ 180.22 |
| Total Operating Revenue per Encou | $ 176.93 | $ 179.85 |
| Operating Margin | 0.58% | -0.21% |
| Days Cash On Hand | 3.2 | 7.0 |

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