

# Implementing a Process to Measure Return on Investment for Nursing Professional Development



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Return on investment (ROI) is one way to quantify the value that nursing professional development brings to the organization. This article describes a process to begin tracking ROI for nursing professional development. Implementing a process of tracking nursing professional development practitioners' ROI increased awareness of the financial impact and effectiveness of the department.

sional Activities: A Review of the Evidence" (Opperman, Liebig, Bowling, Johnson, & Harper, 2016a). The department regularly plans and evaluates educational programs' effectiveness based on nurse needs assessments, satisfaction surveys, audits, test results, performance competency validation, and quality outcome measures. Before this point in time, the financial efficiency of the department was not incorporated into the program planning or evaluation. With the changing financial state of health care, evaluating financial efficiency of education was necessary.

It can be a challenge for nursing professional development (NPD) practitioners to show the value of their role. The key responsibilities of the NPD practitioners are essential to an organization including onboarding/orientation, competency management, education, professional role development, research/evidence-based practice/quality improvement, and collaborative partnerships (Harper & Maloney, 2016). The ability of the NPD practitioner to measure the financial impact of these responsibilities helps guide decisions regarding educational needs, method offered, clinical staff attending, equipment or supplies needed, or changes to the current process to ensure professional development activities are effective and efficient. One way to show this value is through measuring return on investment (ROI). ROI takes into account the program costs and financial benefits to determine the economic return from an educational program (DeSilets, 2010). Calculating ROI can be a challenge for some NPD practitioners due to time constraints and lack of skills in calculating ROI.

At this community 210-bed medical center in the Midwest, the NPD department at that time included 10 NPD practitioners, two of these were NPD specialists (certified in NPD with advanced degrees). The types of programs coordinated through this department include orientation, monthly continuing education offerings, preceptor workshops, new graduate programs, charge nurse training, annual competency, and new product/equipment training. Each NPD practitioner was also involved in unit-specific education initiatives. After reviewing and discussing the article, the NPD practitioners decided to start small and begin a tracking spreadsheet of projects, including the project title, intervention, outcome, and financial impact described in narrative rather than numbers. Since the fiscal year 2016 was ending that month, a spreadsheet was initiated to retrospectively list projects done during that fiscal year (July 2015–June 2016). Of the 10 NPD practitioners in the department, three (30%) participated in adding projects to the spreadsheet, with a total of 14 projects included.

After 9 months in March 2017, it was determined to revisit ROI at the journal club to discuss a second article titled "Measuring Return on Investment for Professional Development Activities: Implications for Practice" (Opperman, Liebig, Bowling, Johnson, & Harper, 2016b). At this session, all of the nine NPD practitioners attended (one NPD specialist had retired). During this discussion, the spreadsheet was modified for the current fiscal year 2017 to match the steps in calculating ROI included in the article. The new columns included project title, desired outcome, intervention, identified expenses (per year), program costs, potential savings, ROI, and specific outcomes (effectiveness). To calculate expenses, the human resources department was

## GETTING STARTED

On June 2016, the NPD department at this facility chose an article on ROI for the monthly department journal club titled "Measuring Return on Investment for Profes-

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contacted to obtain the median or average salaries for each job description involved in the expenses. Each educator was challenged to calculate the ROI for one of their projects for that fiscal year and add it to the spreadsheet. The barrier of time was still voiced, but the barrier of lack of skills had decreased because of the journal club articles' review and discussion. Over the next month, two ROI projects had been documented on the spreadsheet by the NPD specialist. These were emailed to the other seven NPD practitioners as examples to encourage others to meet the challenge of doing ROI on one of their projects. Even with the examples, some NPD practitioners found the process confusing. Over the next few months, the NPD specialist met with four other NPD practitioners to complete a project ROI and educate on the process. No additional resources were needed for implementation.

## ROI PROJECT CALCULATION EXAMPLES

The first project was nurse education for peritoneal dialysis (PD). For inpatient nurses, PD is a low-volume skill and thus difficult for the nurses to maintain their education and competency. There are multiple staff complaints and patient issues each year related to PD. In fiscal year 2016, a performance improvement team decided to implement a quarterly PD review for the nurses to have the option of attending to keep up their skills. The quarterly reviews began on February 2016 (Month 7 of fiscal year 2016). The ROI calculated for fiscal year 2017 was for maintaining the quarterly reviews for the nursing staff. This included three stations with education and return demonstration. The annual cost of the PD review is listed in Table 1. The desired outcomes were to increase nurse comfort level with performing PD and appropriately manage these patients to prevent complications (decrease length of stay by 1 day per year). Nurse comfort level was measured during the annual nurse learning needs assessment.

Determining what to measure for savings and where to get the amount for that savings was a confusing point for the NPD practitioners. For this project, it was decided

that potential savings was in decreasing patient length of stay by appropriately managing their dialysis. The Becker's Hospital Review Web site was used, and for 2013, the average cost per inpatient day in Illinois nonprofit hospitals was \$2,296 (Rappleye, 2015). This savings resulted from reducing PD complications from lack of appropriate staff technique causing increased length of stay, increased treatments (antibiotics), and decreased patient satisfaction. If the program produced a result of one less inpatient day per year, the ROI is 91%.

$$\frac{\text{Total Benefit (savings)} - \text{Total Cost (expenses)}}{\text{Total Cost (expenses)}} \times 100 \\ = \frac{\$2,296 - \$1,204}{\$1,204} \times 100 = 91\% \text{ ROI}$$

The annual nurse learning needs assessment is measured on a 5-point scale, with 5 being very comfortable and 1 being not comfortable at all. To measure effectiveness, the medical-surgical unit (MSU) results were selected because they have the most patients needing PD and assist the other units. The MSU staff comfort level with caring for a PD patient increased after implementation of the PD quarterly reviews from 2.80 to 3.18 to 4.20 from fiscal years 2015 to 2017, respectively. The MSU staff comfort level with converting a PD catheter and with the PD night cycler also improved similarly over those fiscal years. This was included in the Specific Outcomes (Effectiveness) column of the ROI spreadsheet. Since implementation, there are less need for staff support and fewer complaints. Most of the ongoing opportunities for improvement are related to accurate documentation of PD.

The second project was colon clean closure for the operating room (OR). The desired outcomes are to reduce surgical site infection (SSI) rates for elective colon surgical cases (reduce SSI by one per year) and increase the comfort level of nursing staff in preventing SSIs. The project steps include a 30-minute live presentation to the OR staff on the new process, poster presentation in the department, and an electronic learning module. The costs of this program are listed in Table 2.

For this project, the potential savings was decreasing SSI by one per year. According to the Agency for Healthcare Research and Quality, the estimated extra cost per case of an SSI is \$21,000 (Opperman et al., 2016b). If the program reduced one SSI per year, the ROI is 490%.

$$\frac{\text{Total Benefit (savings)} - \text{Total Cost (expenses)}}{\text{Total Cost (expenses)}} \times 100 \\ = \frac{\$21,000 - \$3,558}{\$3,558} \times 100 = 490\% \text{ ROI}$$

The annual nurse learning needs assessment for the OR nurses is also measured on a 5-point scale, with 5 being

<b>TABLE 1 Peritoneal Dialysis Quarterly Review: Annual Expenses (Per Year)</b>		
NPD practitioner time (room setup, manning stations, and teardown)	3.5 hours × \$43/hour × 2 NPD staff = \$301 per quarter \$301 × 4 quarters = \$1,204	\$1,204
Participants' time	Optional education is not paid at this facility. Any pay would have been at the discretion of the managers.	\$0
Total cost		\$1,204

**TABLE 2** Colon Clean Closure: Annual Expenses (Per Year)

Live presentation	NPD practitioner preparation time	2 hours × \$43/hour	\$86
	NPD practitioner presentation time	1 hour × \$43/hour	\$43
	Participant time	0.5 hours × \$40/hour × 45 staff	\$900
Electronic learning module	NPD practitioner module development time	1.3 hours × \$43/hour	\$57
	Participant time to complete module	.33 hours × \$40/hour × 65 staff	\$858
Poster presentation	NPD practitioner poster development time	.33 hours × \$43/hour	\$14
Staff expert support	Staff time for auditing and education reinforcement	2.5 hours × \$40/hour per month × 4 months	\$400
Equipment	New clean closure trays	\$200 × 6 trays	\$1,200
Total cost			\$3,558

very comfortable and 1 being not comfortable at all. Staff comfort level with SSI prevention was 4.11 in fiscal year 2017. This will be compared with the fiscal year 2018 nurse learning needs assessment performed in early 2018, 1 year after implementation of the new colon clean closure practices. Colon SSI is tracked monthly, and the data since implementation will be compared with the SSI rate before the intervention.

## OUTCOMES

For fiscal year 2017, five of eight NPD practitioners (63%) completed at least one project ROI calculation, for a total of 13 projects included. On the basis of these 13 ROI calculations, the department had objective data to help with future project decision-making. Implementing a process of tracking NPD practitioners' ROI increased awareness of the financial impact and effectiveness of the department. With this increased awareness, the process of planning department- or unit-based projects now includes an ROI calculation to justify the implementation, education needed, method of education, equipment/supplies needed, and selection of staff to receive education. ROI helped the department answer the question, "Do the financial benefits outweigh the expense of the activity?" (DeSilets, 2010).

## LESSONS LEARNED

The thought of beginning to calculate ROI for NPD projects can be challenging. Recommendations to gain skills in calculating ROI include identifying a leader within the NPD department. This should be the NPD practitioner who is skilled and interested in ROI calculation and one who will be motivated to invest the time to make the process successful. The leader will need to keep revisiting the topic, offering more knowledge, examples, and resources to increase the NPD practitioners' understanding of the importance of ROI and how to calculate ROI. This could be

through journal articles, Webinars, emails, or other educational opportunities.

A quote from the journal club article that showed the importance of ROI was "NPD practitioners are often the first to be called when a problem surfaces and the first to experience reductions when the budgets are tight" (Opperman et al., 2016a, p. 122). That statement resonated with every NPD practitioner. Their collective reaction was to prove NPD practitioners' value to the organization. Once the reason for measuring ROI is identified, there is motivation within the department to start measuring it for projects, but the conversation needs to continue to keep the NPD practitioners engaged. For this facility, quarterly discussion on ROI could increase initial participation. Another important step to getting the NPD practitioners to participate in measuring ROI was for the leader (NPD specialist) to complete the process first, calculate ROI for two projects, and send them to the other NPD practitioners as examples. This helped the NPD practitioners understand how measuring ROI applied to projects being completed in the facility. The NPD specialist also sent out several email reminders to the other NPD practitioners with an offer to assist in calculating ROI for one of their projects. Four NPD practitioners responded with a request for assistance. The NPD department ROI spreadsheet is reported to the NPD department manager. This expectation adds accountability to get the ROI measured. In fiscal year 2018, each NPD practitioner is again being challenged to complete one ROI calculation and add it to the spreadsheet. The NPD practitioners who participated in ROI in fiscal year 2017 stated that, moving forward, it will be easier to calculate and take less time. The three NPD practitioners who did not participate expressed interest in meeting with the NPD specialist to review the steps to calculate ROI and add a project to the spreadsheet. It was requested that this also be added as a goal during their performance evaluation in fiscal year 2018.

Tracking ROI for the NPD department added another tool for the planning stage of all educational programs at this facility. It was determined that not all education needs to be live and not all staff need to attend or be trained on every topic. More creative means of education were implemented as a result of this project. Education is now offered on-demand through different modalities incorporating a variety of technologies that decrease the cost of education but maintain effectiveness.

## CONCLUSION

The ROI spreadsheet provides a standardized format for reporting potential and real outcomes. NPD practitioners can use this method to assist with evaluating education priorities and allocating resources based on statistically relevant data. Implementing this process has shifted the

mindset of the NPD practitioners involved to focus on ROI with every facet of the role.

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For an additional continuing education article related to the topic of ROI, go to [NursingCenter.com/CE](http://NursingCenter.com/CE).