ReInforcedCare™

The ROI of Partnering with ReInforced Care

Reduced Readmissions
Reduced Length of Stay
Other Benefits

ROI of 285%

Introduction

ReInforced Care, Inc. (RIC), based in Raynham, Massachusetts, assists hospitals in their efforts to reduce avoidable readmissions, improve post-discharge care, improve patient satisfaction, maximize efficiency and optimal use of nursing and allied health staff, and understand the plethora of data gathered from and about patients.

We do this via our live-call-based, customizable communication platform. Through this we reach out to patients on a hospital's behalf, reinforce their discharge instructions, gather information on their post-discharge experience, and bring this valuable information back to the hospital. Providing the hospital with the 'voice of the patient,' in addition to extensive analyses, means we offer valuable insight that leads to effective change.

We believe it's a valuable exercise to specify the effect on a hospital's bottom line of the sort of benefits hospitals derive from partnering with us. Each of the following six pages addresses one component of our clients' return on investment (ROI). The final section shows how these components can work together in yielding a total ROI.

First, we cast each benefit in terms of the hospital's investment. As an example, when an average client, one that invests $125,000 per year in our service, gains the equivalent of $100,000 thru a single ROI component, it is recouping via that component alone 80% of the value of the initial outlay. Then, when it comes time to summarize the effect of all these components, we subtract the original investment from the amount gained to show not just the total gain but the net gain. When our average hospital earns $481,000, it is realizing ($481,000 - $125,000)/$125,000 net for **a Total ROI of 285%**.

Where possible, we report actual results; otherwise we detail our estimation methods. In places we report results that strictly speaking only apply for hospitals operating under potential CMS penalties, or under an ACO or other capitated environment. For such ROI components we have reported all results from our client base, which includes hospitals both eligible and ineligible for such benefits.

1. Readmission Savings under ACOs and Other Capitated Plans

In a Nutshell	Technical Details
• For an average ACO hospital, our readmission reduction translates into lower inpatient costs per year, the equivalent of 192% of the original investment on ReInforced Care. • Even if we also count hospitals not eligible for such gains, the average such benefit is 71%.	While many RIC clients reduce 30-day readmissions by 10-12%, for the average *ACO* hospital this figure has been 8.6%. At per-year figures of 6,200 discharges, an 11.1% baseline readmission rate, and a marginal or unreimbursed portion of charges accrued equal to $5,884 per re-hospitalization[1], our ACO hospitals have reduced per-year inpatient costs by 6,200 x (11.1% x 8.6%) x $5,884 = $348,000. Average per-year scenario: $348,000/$181,000 invested = a 192% gain. Average among *all* RIC hospitals (including even those ineligible for ACO penalties or incentives): a 71% gain.[2] [1] $13,407 is the weighted average of readmission costs for each of four payer categories (Medicare, Medicaid, Private, and Uninsured), per https://www.hcup-us.ahrq.gov/reports/statbriefs/sb199-Readmissions-Payer-Age.pdf, pp. 4, 6. $5,884 is the estimated marginal portion. Note that readmissions cost on average $1,547 more than index admissions. [2] With this figure and similar figures below, we take the average of each individual hospital's percent gain. Percents being what they are, this produces slightly different results than if we had used the alternate method of computing the average percent gain using (average gain) / (average investment).

2. Savings on CMS Readmission Penalties

In a Nutshell	Technical Details
• The average CMS *penalty-category* readmission translates to $4,000 in CMS penalties. • Working with ReInforced Care has meant fewer penalty-category readmissions, on average recouping 150% of the original investment in RIC.	The Centers for Medicare and Medicaid Services (CMS) have designated several patient categories for which readmission rates at each hospital are used to determine financial penalties. These categories are thus widely known to have quite a disproportionate effect on reimbursements for *all* Medicare-covered hospitalizations. But how much of an effect? CMS's formulas are so complex that they do not allow hospitals to calculate the penalty-related cost of each readmission. However, using publicly available, national data, we devised a study[3] to estimate this cost. Our original method used a specialized type of regression combined with a Monte Carlo simulation. For the penalty categories, the prevention of a single Medicare readmission was found to save the average hospital $6,000 for FY 2013 and FY 2014. In recent years, with the expansion of penalty categories, we estimate that each such readmission prevented saves $4,000. Partnering with ReInforced Care, the average hospital has achieved a readmission reduction of 10%. Among the relatively small group of *penalty-category* readmissions for *Medicare* patients, this translates into 35 fewer readmissions per year. Typical scenario: 35 x $4,000 = $140,000 per year. The percent gain ranges from 0% (for an ineligible hospital) to 310%, averaging 150%[2]. [3] http://www.reinforcedcare.com/financial-benefits

3. Additional Admissions
(Beyond 30-Day Readmissions)

In a Nutshell	Technical Details
• By adding to patient satisfaction and loyalty we contribute to hospital revenue via post-30-day admissions. • We help hospitals meet requirements of Joint Commission Advanced Certification, which enhances prestige. • By eliciting testimonials from satisfied patients we further support hospitals' marketing efforts. • Together these help recoup the investment in RIC by an estimated 22%.	First, we conduct high-volume, compassionate outreach to patients post-discharge, informed by data and clinical direction from the hospital and supported by specialized telecommunications and data collection software. This adds to new admissions beyond the 30-day window. Second, partnership with us can help achieve Joint Commission Advanced Disease-Specific Care Certification. This has many benefits[4], including increased prestige and quality of care. Below we take credit for a small portion of the expected additional admissions. Third, we obtain many testimonials to the excellence of our client hospitals' care—testimonials they use in marketing materials. These, too, contribute to new admissions. Estimates: For the average US hospital, annual discharges number about 7,250. Roughly 45% of patients will be hospitalized again within 1 year. An estimated 2/3 of these readmissions will occur outside the 30-day window. About 25% of these (544) might ordinarily choose a different hospital, but the three factors above, *combined*, reduces this "leakage" by perhaps 1/3 (180). With an average annual profit margin of 2%, and an average admission revenue of \$11,860 (see p. 2), these extra admissions would add a profit of 180 x 2% x \$11,860 = \$43,000 per year.[5, 6] Estimated result among RIC hospitals: \$27,000 or a 22% gain, ranging from 11% to 32%.[2] [4] http://www.jointcommission.org/assets/1/18/hap_value_accreditation.pdf [5] http://www.beckershospitalreview.com [6] http://hcupnet.ahrq.gov/HCUPnet.jsp

4. Additional Profits for Hospital-Owned Physician Practices

In a Nutshell	Technical Details
• Achieving a 10% increase in the fraction of patients attending outpatient appointments adds to the average hospital's net margin, recouping 15% of the original investment.	The scripts we design with hospitals to guide our telephone outreach usually include questions about follow-up outpatient appointments. We reinforce discharge instructions by encouraging patients to schedule such appointments and to attend them once they are scheduled. We also connect patients who need a PCP to an M.D. referral line. This work increases attendance at M.D. appointments by an estimated 10% among patients we reach. Many of these new visits (perhaps 50%) will go to physician practices owned by the hospital. With 7,250 discharges per year, and with each outpatient visit bringing in an estimated net margin of \$85, this would create an additional profit of 7,250 x 10% x 50% x \$85 = \$31,000. This constitutes an average gain of 15% of the original investment.[2]

5. Reports and Analyses

In a Nutshell	Technical Details

• Hospitals place great value on the insights we provide concerning patient experiences, risk factors and outcomes. We estimate that this aspect of our service is worth on average 34% of the original investment.	ReInforced Care produces a variety of standard and customized reports for hospitals—monthly, quarterly, and in real time.
	
	• We present details on the alerts we send to hospital staff.
	• We shed light on short-term patient outcomes such as success or failure in acquiring medications or equipment.
	• We investigate longer-term utilization and other outcomes. Through in-depth statistical analyses we delve into the relationships between key outcomes and predictive factors, often controlling for confounding variables so as to best isolate relationships of interest.
	• We respond to client-specific questions such as
	    ○ "Do certain home health agencies do a better job at making home visits within 48 hours of hospital discharge?"
	    ○ "Does readmission vary by (patient neighborhood / day of week / attending physician / etc.)?"
	    ○ "Are there seasonal patterns in utilization for certain diagnoses?"
	
	We find that hospital analysts and database specialists are strapped for time and can only investigate a small fraction of the topics of interest to clinicians or leadership. In addition, few Quality or Case Management teams can take advantage of statistical software such as SPSS, SAS, or R. As such, clients tell us that our analyses and reporting bring them considerable value.
	
	Average scenario: $35,000 per year or a 34% gain.[2]
	Best-case scenario: $60,000 per year.

6. Reductions in Readmits' Length of Stay

In a Nutshell	Technical Details
• Even when ReInforced Care patients do readmit, their stays tend to be shorter than those of other comparable readmits. This has enabled the average hospital to recoup 139% of its original investment.	Utilization reduction need not be limited to readmission. We usually find that patients we call who subsequently readmit require shorter stays then other comparable readmits. This difference has averaged 0.40 days and has been as great as 1.15. Multiplying this reduction by the marginal or unreimbursed cost of a patient day and then by the annual number of readmits from the RIC population, we typically find that the benefits are in the six-figure range. The average hospital has reaped benefits equal to 139% of their original investment, while one hospital has realized a gain of 477%.

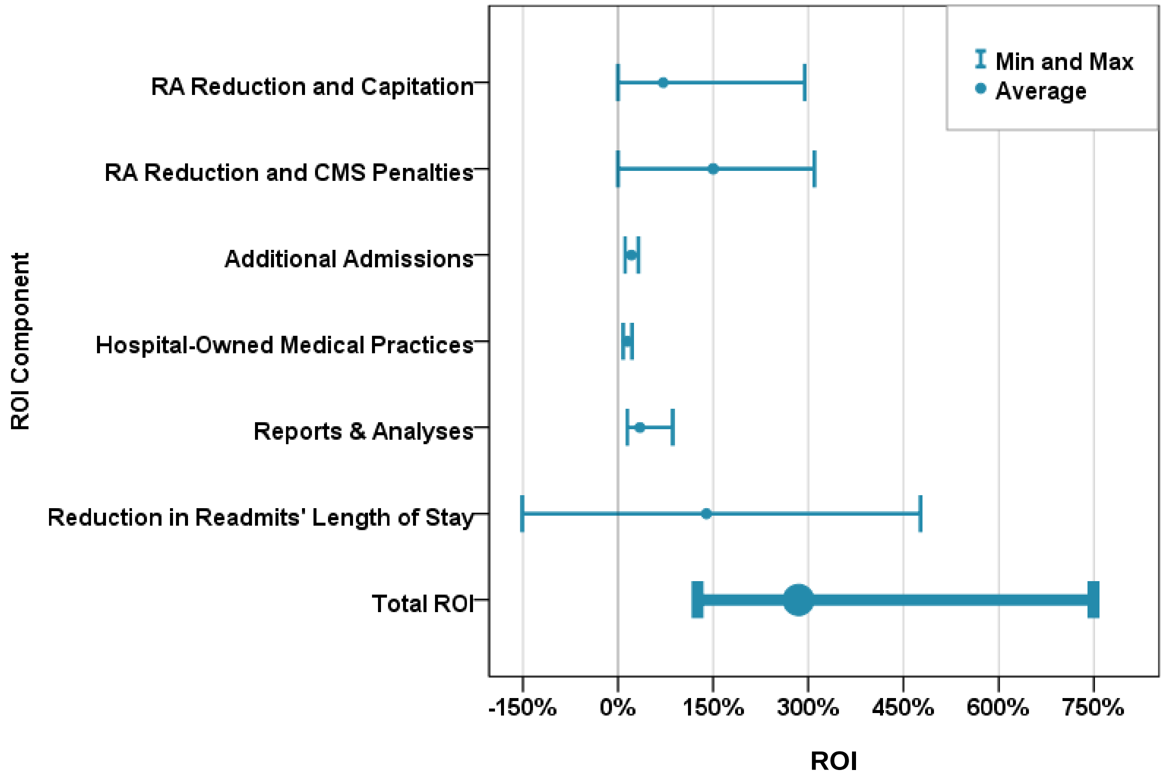
Unquantifiables. Some benefits are more difficult to capture in monetary terms. None of these are included in the calculations presented in this paper, but they are worth keeping in mind nonetheless. These benefits include:

Enabling more efficient use of nursing staff. Our outreach to patients frees up nurses from the details of telephone contacts and record-keeping so they can perform the kind of work for which they are uniquely trained.
Helping hospitals to meet their Value-Based Purchasing Program goals and bonuses, of which 25% is based on the Patient and Caregiver-Centered Experience of Care/Care Coordination domain in 2017.
Supporting patient wellbeing in the hospital's name, which may indirectly encourage additional patient donations.
Prevention of litigation, both through offering patients a sympathetic ear and through communicating with the hospital to head off possible difficulties.
Providing a consistent, structured, multidisciplinary platform by which staff can organize their work in addressing issues raised by patients post-discharge.

Putting It All Together

Every hospital we've partnered with has seen a benefit in most or all of the six quantifiable categories we've described. The most modest benefit comes from increased revenue for hospital-owned medical practices (which recoups on average 15% of the original investment), while the largest comes from, for ACO hospitals, readmission reduction (161%). In the chart below we show the range of gains made from each of the six components. We then show the Total ROI, which subtracts the first 100% of the amount gained. In this way, we see that, *after* recouping their initial outlay, hospitals are typically seeing a return of 285% of the value of that investment.

ROI Components and Total ROI



Summary

We have attempted to describe and quantify the benefits hospitals obtain when partnering with ReInforced Care. We show average ROI results and the range of results for our clients.

- After our hospitals have recouped their typical $125,000 per-year investment, they have enjoyed an **average ROI of 285%** of that investment. Thus they have enjoyed the equivalent of a $481,000 total gain with a $356,000 net gain.

- Benefits are driven most of all by utilization reductions:
  - ✓ Readmission Savings under ACOs and Other Capitated Plans
  - ✓ Savings on CMS Readmission Penalties
  - ✓ Reductions in Readmits' Length of Stay

We welcome new partners and we welcome input into our methods and findings.

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