GartnerGroup
Advisory Services

Case Study

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Matthew Duncan, AHAS

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Title **A Simplified Financial ROI for an Ambulatory CPR**

Summary Most healthcare CIOs have struggled to provide tangible benefits to demanding CEOs and boards, when asked to justify the exorbitant cost of computer-based patient record initiatives. Using one physician's example, it might be possible to quantify an ROI after all.

Core Topics
Healthcare IT Drivers and Strategies ~ Industry Applications

Key Issues
Primary Key Issue
How will IT reshape healthcare business processes, relationships and models?

Secondary Key Issues

Strategic Planning Assumptions
HCOs that implement proven ambulatory CPRs in their physician offices by 1999 will have realized an ROI greater than the cost of the system by 2001 (probability = 0.8).

Introduction:
Most HCOs have acknowledged the need to address healthcare's overwhelming information intensity by deciding to invest in computer-based patient record (CPR) initiatives. The ultimate objectives are to improve clinical quality and patient satisfaction, and to lower the cost of care. Despite many vendors and analysts (see SPA-05-7373, 25 Aug 1998, "Nonclinical Benefits of the CPR) espousing the theoretical financial benefits of a CPR implementation, however, very few demonstrable examples have been celebrated.

Problem:
Without integrated outcomes applications available to quantify improved clinical results or patient satisfaction, many HCO executives are either reluctant to make large investments in CPRs, or frustrated by a perceived lack of return on the money they have already spent.

Objective:
One physician in California realized that by automating his patients' charts in his solo practice clinic, he could realize both tremendous cost savings and increased revenues.

Approach:
The primary care physician selected and installed the ambulatory CPR offering from Med-Works, a Los Angeles-based vendor. He then developed baseline cost and revenue assumptions, and monitored improvements in his practice over an 18-month period.

Results:
The doctor cited the following cost savings:
1. $200/month on physical chart savings - $2/each for supplies x 100 new charts/month
2. $1,000/month on transcription services no longer needed
3. $2,250/month on staff time related to physical chart manipulation - 6 hours/day on cutting, pasting, pulling and filing charts x $15/hour salary x 25 work days/month

Total savings: $41,400/year for a single practitioner.

He then explained his revenue improvements:
1. He is seeing one additional patient per hour because of faster information retrieval and documentation.
2. The average office visit generates $60 in revenue.
3. He sees patients 45 hours per week, four weeks per month.

Total revenue increase: $129,600/year.

Critical Success Factors/Lessons Learned:
While it may not be realistic to expect these types of dramatic cost savings and revenue improvements from all CPR initiatives or all physicians, the estimating assumptions and realized benefits are certainly reasonable in a controlled ambulatory setting. However, the ROI is very unlikely to be linear; the more physicians, the more complex the implementation, and the more costly the system. Also, with a sample size of one physician, we are unable to gain insight into the larger potential return - the economies of scale and improved clinical quality from physicians sharing patient information across multiple care settings.

Still, if an HCO modified the assumptions to a much more conservative level, say $10,000/year savings and $25,000/year increased revenue per physician, the enterprisewide financial impact could be enormous. The 1998 GartnerGroup IDS survey reported that the average IDS employs over 100 primary care physicians (PCPs). If an IDS with 100 PCPs were to implement a fully-functional ambulatory CPR in each of its doctors offices, this more conservative scenario could generate annual revenue increases of $2.5 million and cost savings of $1 million. Of course, this assumes that the IDS would be able to ensure full CPR acceptance and usage, and that all of its physicians would realize the improved efficiencies. Still, the potential implications are staggering, and certainly worth the investment.

It should be noted that the technical challenges and political barriers to implementing a CPR are far less in a physician office setting than in an acute care setting. As a result, many HCOs are shifting their initial emphasis on CPR deployment to their ambulatory care networks, where demonstrable vendor solutions are far more plentiful than in hospitals. Ultimately, we expect the largest vendors' R&D investments to pay off in truly integrated, enterprise CPR products. In the meantime, it would behoove HCOs to consider taking advantage of the tangible ROIs available in the office setting.

Bottom Line:

It may be possible to justify the cost of an ambulatory CPR based solely on financial returns after all. Even using a conservative extrapolation of one doctor's savings and increased revenues, an HCO may be able to pay for its ambulatory CPR many times over. HCOs that implement proven ambulatory CPRs in their physician offices by 1999 will have realized an ROI greater than the cost of the system by 2001 (probability = 0.8).

Sidebar:
Acronym Key
CPR - computer-based patient record
HCO - healthcare organization
IDS - integrated delivery system
R&D - research and development
ROI - return on investment

Extended Analysis:

Interest Groups

Include these Interest Groups: Research Area; Core Topic

Group(s)	User(s)