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ROI CASE STUDY DIGITECH SYSTEMS MENTAL HEALTH CENTER OF DENVER

THE BOTTOM LINE

The Mental Health Center of Denver upgraded its legacy imaging solution to Digitech Systems PaperFlow and PaperVision Capture to automate digitization of its patient records. Nucleus found this enabled the center to ensure HIPAA compliance while increasing staff productivity and reducing file storage costs.

ROI: 1315%

Payback: 6 weeks

Average annual benefit: \$259,625

THE COMPANY

The Mental Health Center of Denver (MHCD) is a private nonprofit organization providing mental health services for the City and County of Denver, Colorado. Founded in 1989, MHCD employs more than 500 health care professionals and operates 8 outpatient clinics and 23 residences for people recovering from mental illness. MHCD treats more than 15,000 patients a year and has an annual operating budget of \$47 million.

THE CHALLENGE

Although MHCD had deployed an electronic medical records (EMR) system in 2003 and had deployed some imaging software, the initial imaging solution was manual and labor intensive, so MHCD still stored much of its patient records in paper files. Unlike a hospital, where clients come in and leave after a short period of time, MHCD had many clients with long-term records that could include volumes of documents. MHCD knew it needed a more efficient way to securely manage all of its patient files centrally while making files accessible from multiple sites.

THE STRATEGY

MHCD's director of health information systems attended a health records management conference in 2009 and found that there were much more effective solutions for document capture than the initial solution the Center had deployed. She met with Digitech Systems and the company introduced her to one of its partners with industry expertise that helped the Center to map out a plan for a new content capture strategy. This included upgrading to PaperVision Enterprise and deploying PaperVision Capture, integrating the content repository with MHCD's existing EMR managed by Netsmart, and implementing changes in the process for capturing documents. These changes allowed employees to automate many of the

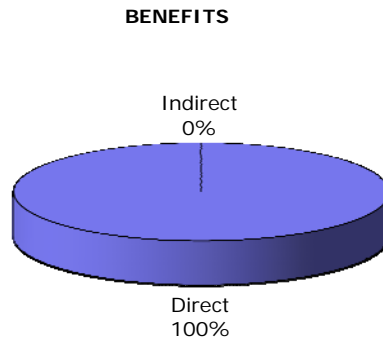
previously manually image capture steps, such as indexing and record number matching.

Today, employees use the digital and optical recognition capabilities to automate the indexing of documents and have digitized more than 10,000 records. MHCD expects to be completely electronic by the end of 2012.

KEY BENEFIT AREAS

By upgrading its records management systems with Digitech Systems, MHCD has increased the accessibility and security of its records while reducing the time needed to enter records into the system. Key benefits of the project include:

- Increased staff productivity. MHCD estimates it was able to avoid one new hire and reallocate five existing staff members by streamlining and automating much of the record capture and retrieval process and making it easier to find and retrieve records.
- Reduced storage costs. By dramatically reducing paper record storage, MHCD was able to reallocate 13 rooms in its various facilities for treatment and office space that were previously used for records storage.
- Improved security and compliance. Because medical records are now stored and tracked electronically, and because MHCD introduced processes to better align its records management with HIPAA guidelines, the center can ensure it follows appropriate records sharing, retention, and purging policies.

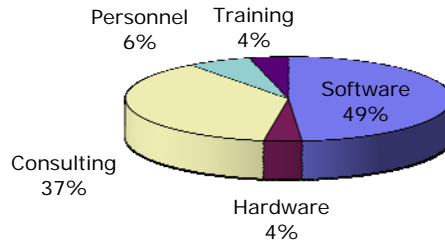


TOTAL: \$778,875

KEY COST AREAS

MHCD invested in software, consulting, hardware, personnel, and training to support the project. The largest cost area was software. Hardware costs were incurred upgrading an existing server. Training consisted of five hours of training for five individuals. Consulting costs included implementation services from ImageTek and ongoing Web services support costs.

COSTS



TOTAL: \$53,335

BEST PRACTICES

Although MHCD had made some investments in imaging technology, the rapid pace of technological change and the complexity and evolution of medical data means organizations often need an outside expert’s view to maximize their returns from technology. With the help of a partner with experience in health care records management, MHCD was able to make both the investment and the change management efforts to increase staff productivity and improve records management. As agencies such as MHCD seek to do more with fewer resources, technology investments can be a valuable way to make existing staff more productive.

CALCULATING THE ROI

Nucleus calculated the initial and ongoing costs of software, hardware, consulting, personnel, and training over three years to quantify MHCD’s total investment in upgrading its records capture processes.

Productivity savings were quantified as direct benefits because they were significant enough to enable the center to redeploy staff and avoid an additional hire. The other savings quantified was storage space, which was estimated based on the number of rooms, the square footage, and market rates for medical office space in the Denver area. Not quantified were the benefits of greater compliance and document security and the ability of MHCD to provide more services to improve patient care because of more efficient record keeping and the availability of new space freed up by eliminating paper filing rooms.

DETAILED FINANCIAL ANALYSIS

MENTAL HEALTH CENTER OF DENVER

SUMMARY

Project:	Digitech Systems
Annual return on investment (ROI)	1315%
Payback period (years)	0.11
Average annual benefit	259,625
Average annual total cost of ownership	17,778

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	180,875	299,000	299,000
Indirect	0	0	0	0
Total Benefits Per Period	0	180,875	299,000	299,000

DEPRECIATED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Total Per Period	0	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Total Per Period	0	0	0	0

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	6,300	8,740	9,660	1,260
Hardware	2,000	0	0	0
Consulting	8,500	4,200	4,200	3,000
Personnel	0	1,136	1,136	1,136
Training	2,068	0	0	0
Other	0	0	0	0
Total Per Period	18,868	14,076	14,996	5,396

FINANCIAL ANALYSIS	Pre-start	Year 1	Year 2	Year 3
Net cash flow before taxes	(18,868)	166,799	284,004	293,604
Net cash flow after taxes	(9,434)	83,400	142,002	146,802
Annual ROI - direct and indirect benefits				1315%
Annual ROI - direct benefits only				1315%
Net present value (NPV)				306,068
Payback (years)				0.11
Average annual cost of ownership				17,778
3-year IRR				943%

FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	8%