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3 Ways Your Data Management Practices Threaten Your Hospital's Performance and Reputation

Budgets are tighter than ever and payers are more exacting. Today's data management practices – which are massively wasteful and highly vulnerable to error – are not in step with the enormous volume of data entering health systems. With this increased volume of data floating around your institution, lack of attention and action to manage it appropriately brings risk to quality of care, staff retention, and the accreditation of your specialty units.

Some patient data is readily accessible to your providers in structured fields in the EHR. Other sources of data, that are equally valuable, are not organized or secure and not easy for providers to access for timely and informed treatment decisions. This unstructured and "non-interfaced" data typically arrives via fax, PDF, or some other format or file type and moves through your institution unsecured. This information requires human intervention from a knowledgeable clinician to make it actionable in today's healthcare information systems.

Forward-looking healthcare organizations, however, are pursuing a new direction and bridging today's data gap. They are embracing unstructured data management solutions that take patient care to new levels, relieve clinical staff of repetitive, error prone data management tasks, enhance staff engagement, promote interaction with patients, and ensure specialty units are fully compliant with the demands of accreditation bodies.

Read on to learn how you can:

- Clarify the issues that make data management a key concern.

- Calculate the costs and risks of current data management practices.

- Identify solutions that will automate and streamline your data management practices.

Trends and Forces:
Stakes Rise with EHR Pervasiveness and Data Interoperability Barriers

Consider some of the data-related trends now influencing the decisions of today's healthcare executives. All suggest inefficient and ineffective data management should be a rising concern.

One key trend is the growing pervasiveness of electronic health records (EHRs). After years of discussion and diffusion, EHRs are now a standard in the healthcare world. However, frustration with this technology is equally pervasive. Much of this frustration is caused by the increased need to get data into the EHR in order to make it useful to clinical staff. One Chief Medical Information Officer we interviewed referred to himself as the "chief EHR excuse officer"

due to the wasteful work created for staff upon the implementation of the EHR.

Most organizations today grapple with these data concerns in the context of Meaningful Use (MU), new reporting requirements under the Accountable Care Organization (ACO) model, and the regular reviews and audits that specialty units must go through on a regular basis in order to remain accredited. All of these initiatives require data.

In a fully interoperable environment, healthcare information could be easily exchanged between hospitals, clinics, and labs – contributing to advances in healthcare quality and patient safety. Everyone knows interoperability is necessary and desirable from a healthcare perspective, but the obstacles to making it a reality still exist. In the meantime, more and more data

is entering your organization and being manually managed by your staff.

Organizational success, high quality patient care, and the ability to provide the necessary data to meet MU, ACO, and accreditation requirements depends on increasing efficiency in data management practices.

Pain Points:
Staff Retention, Care Quality, and Specialty Units All at Risk

Against this backdrop of trends and largely uncontrollable forces, several specific pain points have come to the fore. These are challenges that are within the purview and reach of healthcare decision makers like you. Among these pain points:

Quality of care and patient safety

The issue here is the speed and accuracy with which data is provided. In transplant or cardiology units, for example, lives are in the balance. There is an extreme sense of urgency in which the timeliness and accuracy of data is inseparable from the quality of care.

In fact, patient safety is at issue in any case where sensitive data is involved. If data is inaccessible or inaccurate, doctors are at risk of making the wrong decisions. What they need is the right data at the right time to make the right decision. Treatment decisions depend on having the ability to analyze patterns and make judgments. But analysis depends on the availability of relevant data in a structured, electronic format in an EHR or other decision support system.

Patients also suffer when clinical professionals are wrapped up in clerical and administrative tasks that come at the expense of care. When staff members are engaged in data entry or spend an excessive amount of time trying to make sense of data, it is time that they don't spend with patients. And, as research suggests, this factor has an enormous impact on the patient's perception of care.

But one should also consider the waste and needless expense associated with dysfunctional data practices. When data is unavailable or inaccurate, turnaround time increases, tests get reordered, poor treatment decisions are made, and patients are frequently readmitted. This results in physicians' and nurses' time spent not moving forward with diagnosis and treatment, and instead wasting valuable resources in prolonged examination and testing.

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Staff satisfaction and retention

Your staff is essential to the success of your operation. This is particularly true when it comes to the specialty clinical staff who define the quality of your programs. So it's critical for your people to be happy, engaged, and productive.

However, clinical staff members experience dissatisfaction when they don't have access to the right information when they need it. When important data is trapped in faxes or other documents, staff must spend extra time searching for it and analyzing it. That's time that can't be spent with patients.

Take lab results as an example. One CMIO we interviewed said that it can take him anywhere from 10-20 seconds to just find the date that the test was run. In other words, it takes him that long just to figure out if he is looking at the right document. If he is not, he needs to start all over again.

In another instance, we watched as a physician scrolled through attachment after attachment in the EHR trying to find the document he needed for a patient visit. Imagine if he needed to find more than one document for that patient. Now imagine all of your clinical staff doing this on a regular basis.

Unsurprisingly, it can be difficult to retain staff members who are expected to do large amounts of data entry as well as staff members (including clinical specialists) who depend on it being done. Healthcare providers not only take a hit on productivity, but a hit in terms of overall turnover expenses. And when top talent abandons your organization, your brand's reputation suffers as well.

Protecting the accreditation of key specialties

It's not uncommon for key specialties – transplant, trauma, cancer, cardiology, burn centers – to lose their accreditation. That can be an enormous blow to the

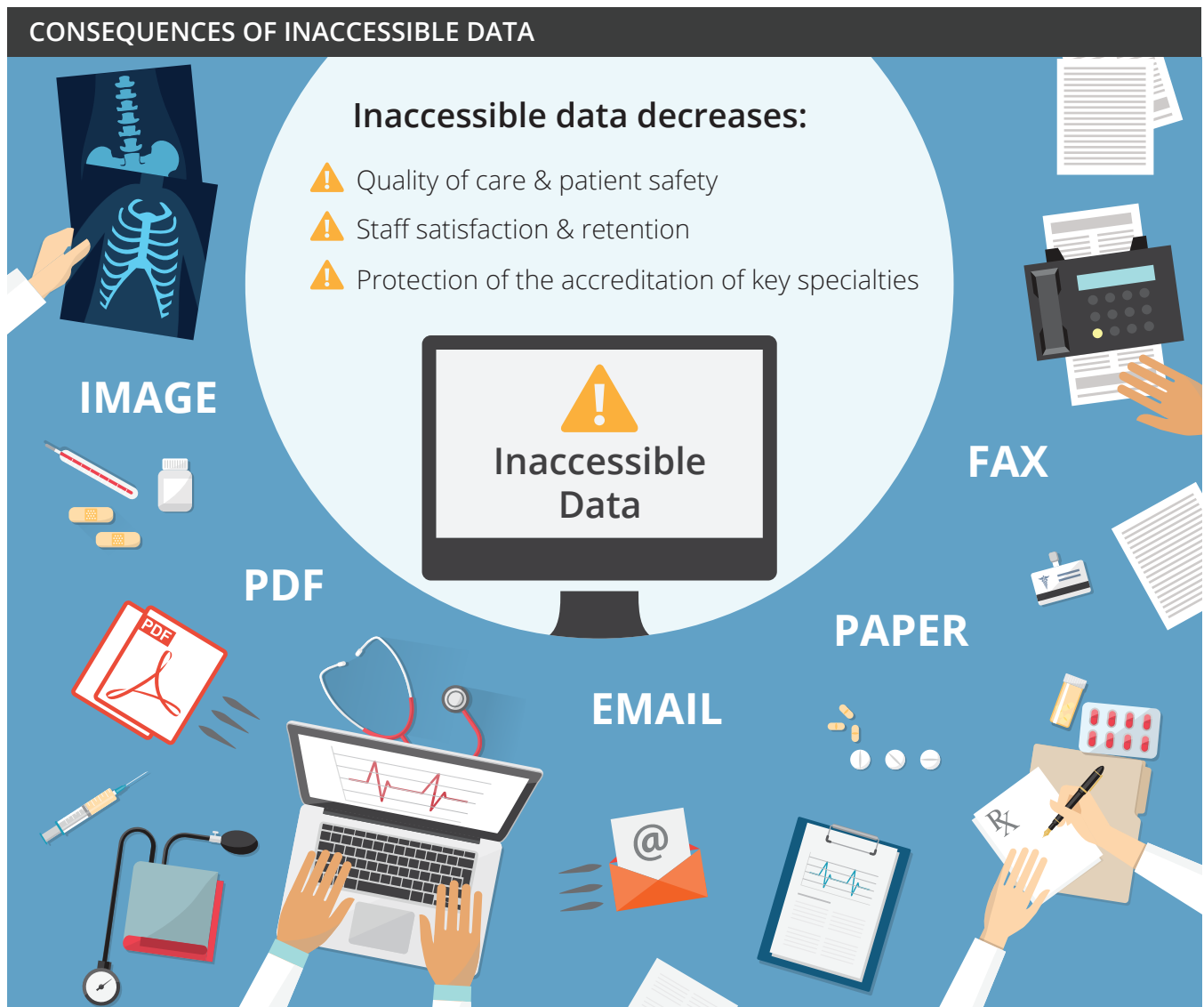medical center that depends on them from care, prestige and financial perspectives.

Audits occur annually and there are many ways in which a specialty unit can fail. These units are particularly vulnerable to failings on the data management front. Auditors, meantime, are now skilled at identifying these vulnerabilities.

After all, critical mistakes can be made. We spoke to a transplant unit, identified in our research,

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that admits to having lost an organ in transit. The stakes are similarly high in trauma, cardiology and other specialty programs.

Maintaining accreditation requires adherence to Standards of Care and solid QAPI programs, but to meet these requirements you need to collect and report appropriate data. Should the unit lose its accreditation, it is unable to practice until it takes the difficult steps necessary to recover its status – assuming it ever does. Healthcare executives are intent on ensuring they don't have to face this scenario. To protect their institutions, they'll need to clarify and address their data management risks.

CONSEQUENCES OF INACCESSIBLE DATA

Inaccessible data decreases:

⚠ Quality of care & patient safety

⚠ Staff satisfaction & retention

⚠ Protection of the accreditation of key specialties

IMAGE

⚠ **Inaccessible Data**

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Strengthening Healthcare Operations with Unstructured Data Management

So how are today's most forward-looking hospitals and healthcare providers addressing these challenges? They are investing in unstructured data management solutions.

Imagine streamlining your data capture workflow so that incoming, non-interfaced lab results are automatically routed to correct areas of the organization.

In these scenarios:

- Unstructured lab result documents are automatically identified and securely routed to appropriate departments and workflows -- ensuring access is limited to appropriate staff.

- Valuable clinical data is automatically extracted from the documents, put into discrete fields, and readied for verification. Typically, 80% of the pre-defined data is captured automatically and is 100% correct without any human intervention.

- Medical technicians verify all the extracted data and make any corrections (with an option to have doctors and nurses do final QA and acceptance before it enters an EHR as structured data).

- Data is automatically standardized to your organization's naming convention and data governance requirements.

- Original files are always attached to the patient record as backup.

BENEFITS OF UNSTRUCTURED DATA MANAGEMENT
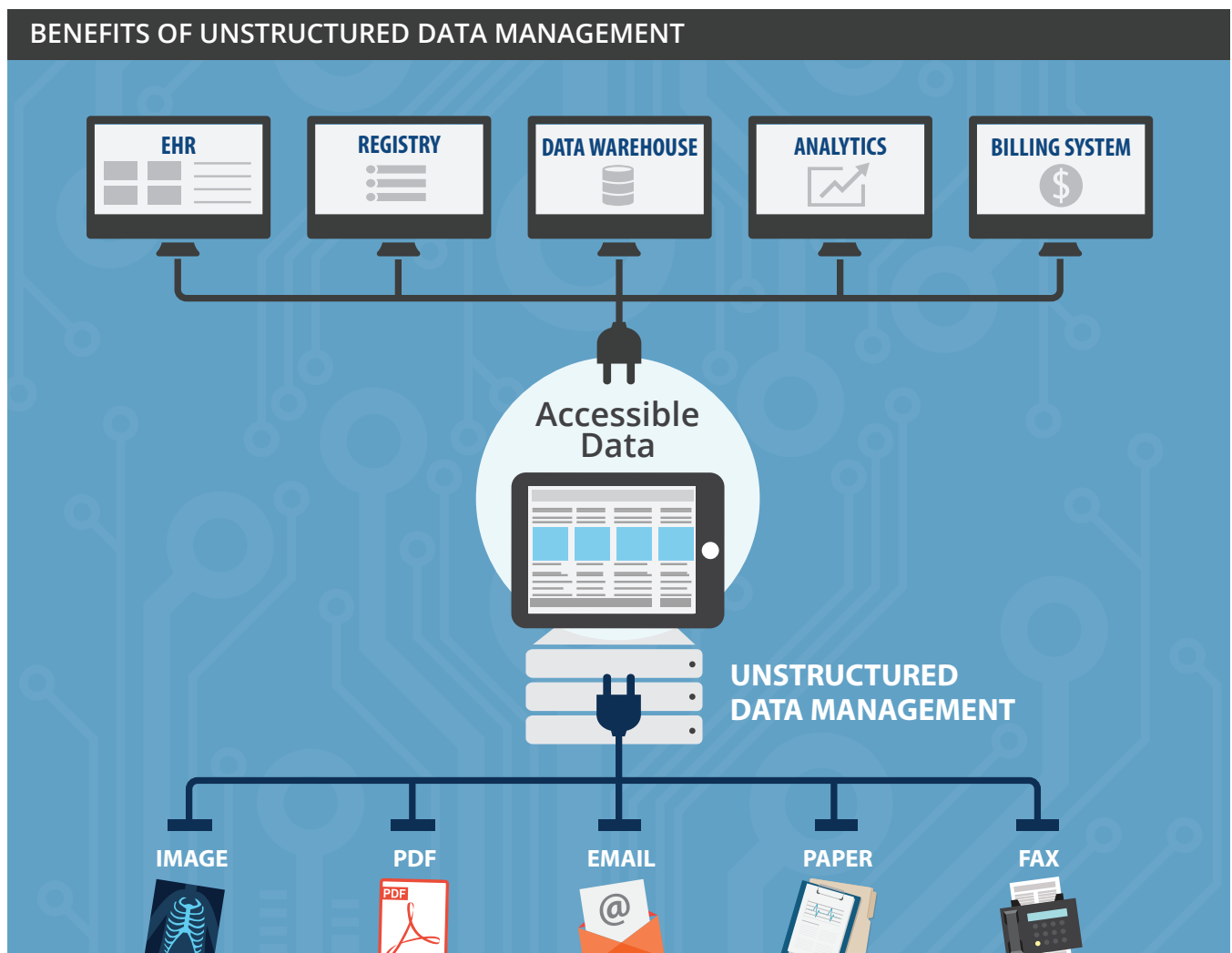
Unstructured data management is a software-based solution designed to automatically capture non-interfaced data, verify it, and save it in your clinical systems (EHR, document management, specialty databases, etc.) for easy access and use. It automates the laborious, manual activities now required to extract and enter this data in the proper formats.

Additionally, this solution does the job of automatically finding the valuable data in documents and presenting it in an organized fashion to be verified. This saves your staff searching through a 3-page fax to find the two lab test results that were relevant to them. The lab results would simply be in the EHR, available to staff for analysis and to support treatment decisions.

The solution offers tools to prevent errors while streamlining the validation process. Without such automation, this data entry process can be costly, time-consuming and error-prone, particularly at an enterprise level as these issues are magnified.

Calculating the Cost of Data Mismanagement

Here's one typical scenario in which a healthcare organization like yours confronts and calculates the implications of the status quo in data management. (You can plot in your own numbers to make a calculation that more precisely correlates with your situation. You might even consider other factors such as the opportunity cost of patients not seen, or the risk of a malpractice lawsuit.)

Assumptions: Your clinical staff regularly needs to refer to paper or faxes because the clinical data found on these documents is not found in the EHR. This interruption to the workflow costs time, money and frustration, and it may even insert errors into the healthcare decision making process.

When these interruptions occur, the information is keyed into the EHR at that moment in time or, it is mentally absorbed by the nurse or physician as best they can in the moment. But this information cannot be included in data analysis or trending or some other valuable comparison to data in the EHR because it is not in your EHR. It is possible to calculate the cost of these expensive workflow exceptions.

By answering a few questions about the quantity of staff, their salaries, and assumptions about how these interruptions might affect their work day, the following assessment can be made:

Nurses		Physicians
3	Interruptions each day	3
10	Minutes per interruption	10
30	Minutes lost each day	30
227	Days worked each year	227
6,810	Minutes lost each year per person	6,810
450	Number on staff	200
3,064,500	Total minutes lost each year	1,362,000
6,384	Total days lost each year	2,838
$80,000	Annual compensation	$250,000
$352	Daily compensation	$1,101
$2,247,200	Annual cost	$3,124,600

Total Cost: $5,372,000

Under these assumptions, $5 million is the cost for your front line people to work with paper documents. And it doesn't end there because the organization also loses in ways that cannot be immediately quantifiable, such as:

1. Frustrated staff (dealing with these interruptions and missing data) could lead to higher turnover.

2. Frustrated staff could mean their interactions with patients are negatively affected.

3. Missing data could lead to missed appointments or reordering of tests as physician does not have what's needed to consult with the patient.

4. Manual data entry could lead to errors and inaccuracies.

5. Data on paper means that it is inherently insecure and has potential for a HIPAA breach.

But these issues are not a given. As discussed, progressive healthcare providers are confronting these costs and vulnerabilities head on.

Success Story: University of Wisconsin

With the launch of an unstructured data management solution from Extract Systems, the University of Wisconsin Transplant Center was able to boost productivity by 80% as it concerned the handling of non-interfaced data. Most of their

patients have labs performed at outside facilities and 600,000 external lab results processed annually. With this solution, they have decreased the time it takes to enter each lab. And, as their program has grown, they have actually been reducing the amount of time spent entering data. More lab results, less time spent doing manual data entry. This means more time for patients.

INCREASE IN NUMBER OF TESTS ENTERED PER HOUR
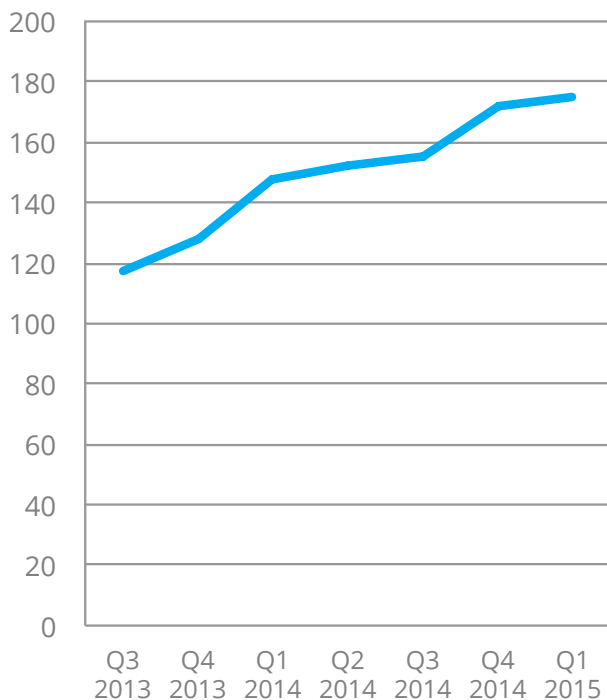
DECREASE IN NUMBER OF TOTAL HOURS SPENT
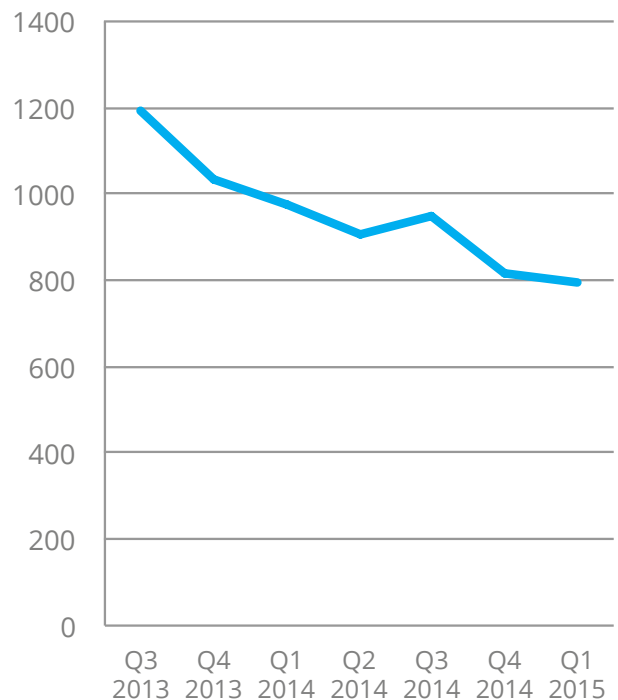
"Our people are entering test results 80% faster since implementing Extract Software's unstructured data management solution, and we're still improving," says Cathy Werwinski, Senior Clinical Transplant Coordinator, University of Wisconsin Transplant. "Our backlog is now much smaller and test results are usually found in the EHR within 24 hours of receipt. The solution has proven its value and UW Health is expanding its use to other parts of the organization."

Conclusion:
Data Practices Drive Healthcare Performance

There's no escaping the close correlation between data management and provider performance in this era of constrained budgets, increasing accountability, and expanding customer choice.

Every misstep – every wasteful or error-prone interaction with data – is a tax on your operation. It's a tax that is magnified and multiplied over time. It's a tax that reveals itself in declining patient satisfaction, high staff turnover, and lost accreditations.

But this tax is not inevitable. As a growing number of healthcare providers have discovered, it can be avoided through unstructured data management. You can automate the handling of documents and unstructured data and streamline your data management practices. And you can automate the finding of valuable data in those documents so your staff doesn't have to. You can radically increase efficiencies and performance.

That's what the future demands of healthcare organizations. Today's dysfunctional data practices are increasingly being exposed as

needless and intolerable. And efforts to justify change are being undertaken. Every step in this direction is a step toward superior and sustainable healthcare.

At Extract Systems we work hard to provide software that makes it easy for clinicians to access the information they need to be more informed and make better decisions while keeping patients' personal details hidden from view to protect privacy. Because high quality care and individual rights depend on access to or the protection of information, we empower healthcare organizations with extremely accurate data capture, classification and redaction solutions tailored to their environments. Healthcare providers want to focus on patients, not on entering or accessing information in multiple systems. Our mission and passion at Extract Systems is to make capturing and protecting data effortless, error free and timely.