Mater
Exceptional People. Exceptional Care.

Leveraging Data and e-Records in Healthcare

Driving Improved Clinical and Financial Outcomes

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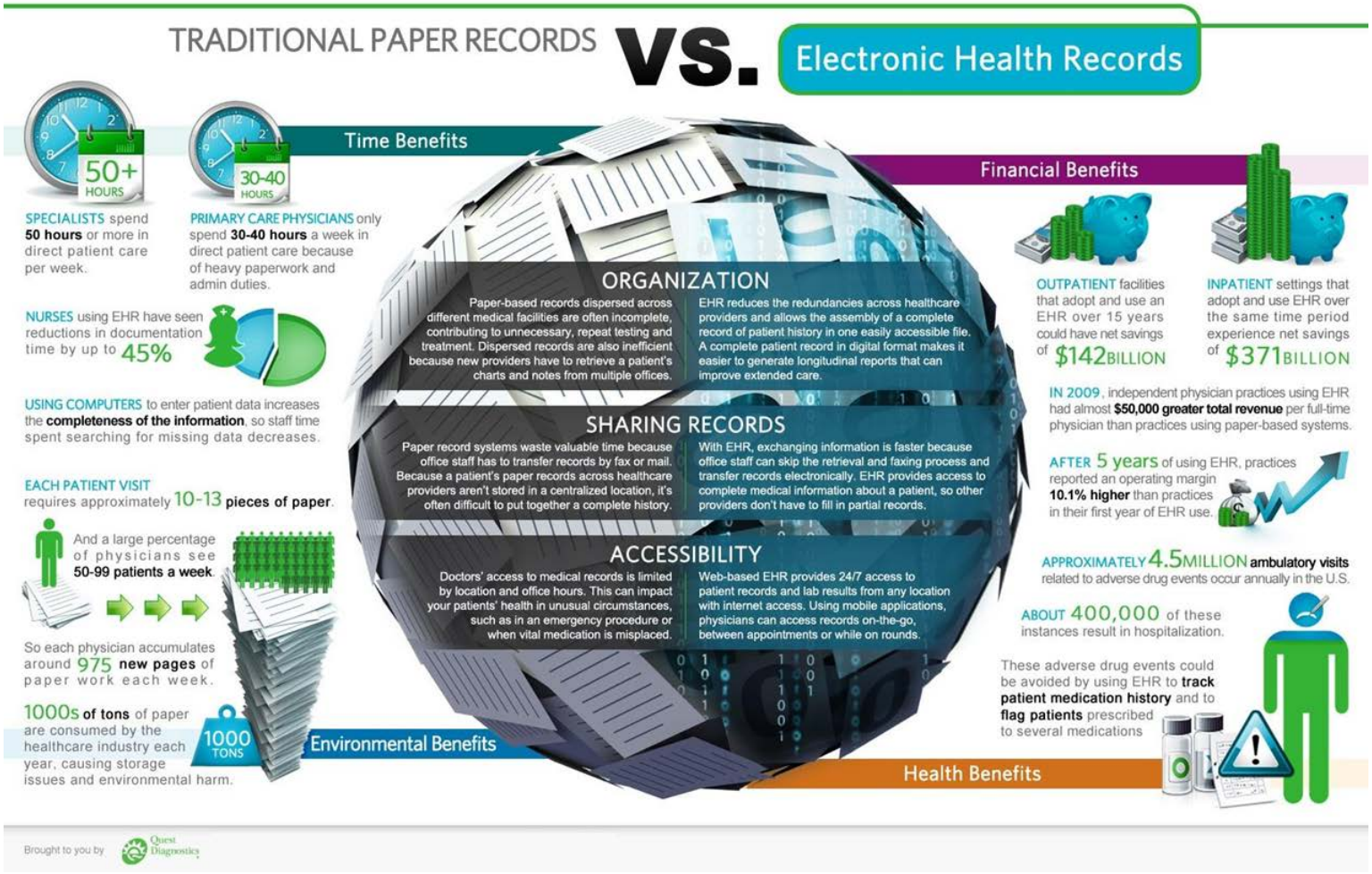
Health Care Records

Many Hospitals and Doctors rooms across the globe are still dependant on unwieldy, paper based patient records.

Traditional vs. Electronic



Clinical / Health Benefits

- Reduction of medical errors and adverse drug events.
- Safer, more reliable prescribing.
- Quicker, broader access to patient records. Provide accessibility to consolidated data, information and medical expertise at the point of care, anywhere.
- Promotes more legible and complete patient records.
- Improved analytics and trending near real time.
- Development of precise clinical processes/workflows using evidence based medicine.
- Reduction of errors in discharge summaries and fewer communications errors at transitions of care.

Time / Efficiency Benefits

- Reduction of documentation time of up to 45%.
- 30 minutes more per nurse, per shift available for bedside interactions.
- Completeness of chart data is increased resulting in less time searching for missing information.
- Ubiquitous, fast access to the patient chart, anytime, anywhere.
- Ease of ordering tests and rapid routing and acknowledgment of results.
- Time saved through e-prescribing.

Financial & Environmental Benefits

- Reducing supplies for paper charts and medical devices.
- Reducing physical storage space.
- Reduced chart handling labour.
- Reduced cost of transcription.
- Reduction of documentation time of up to 45%.
- Reduction of duplicate testing.
- Increase revenue capture by decreasing claim denials and improving the clinical documentation and coding process.

Opportunity Benefits

- Advanced and predictive analytics.
- Robust healthcare data exchange.
- Leveraging mobile platforms for patients and clinicians.
- More efficient and robust medical research.
- Revenue opportunity by re-purposing medical records space.
- Improved patient engagement, involvement and convenience.
- Improved privacy and security.
- Improved work life balance for providers.
- Population health management.

EMR Adoption Model

Asia Pacific EMR Adoption Model[SM]	
Stage	Cumulative Capabilities
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), closed loop medication administration
Stage 5	Full complement of R-PACS displaces all film-based images
Stage 4	CPOE, Clinical Decision Support (clinical protocols)
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology
Stage 2	Clinical Data Repository (CDR), Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable
Stage 1	Ancillaries - Lab, Radiology, Pharmacy - All Installed
Stage 0	All Three Ancillaries (LIS, RIS, PHIS) Not Installed

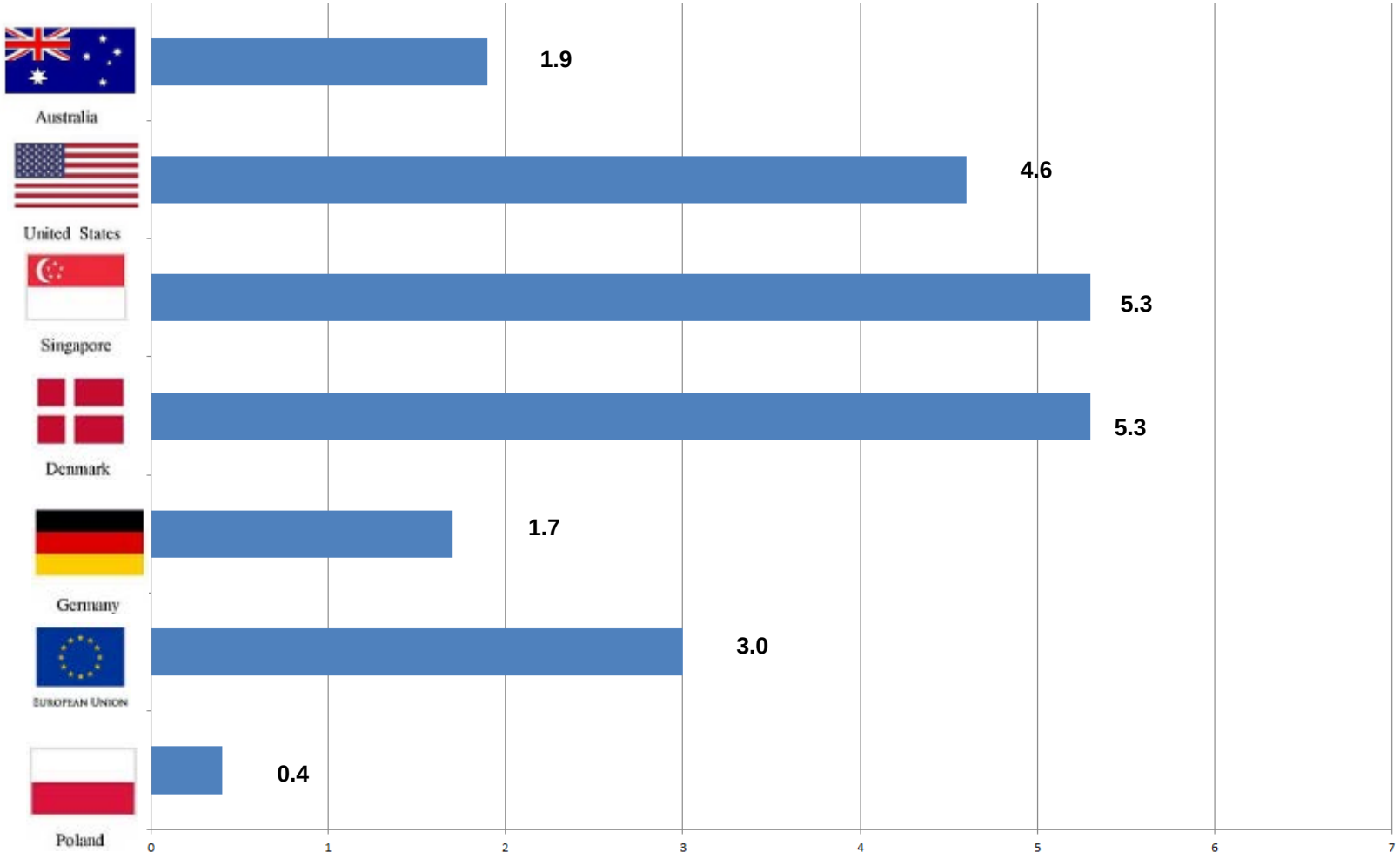
Cross Country EMRAM Score Distribution

Stage	United States*	Canada*	Austria	Netherlands	Germany*	Italy*	Spain*
Stage 7	3.7%	0.2%	0.0%	0.0%	0.6%	0.0%	0.4%
Stage 6	22.2%	0.8%	0.0%	9.5%	0.0%	1.4%	3.9%
Stage 5	30.8%	0.9%	35.7%	38.1%	11.6%	19.4%	42.4%
Stage 4	13.6%	3.3%	2.4%	3.2%	6.7%	0.9%	5.2%
Stage 3	19.7%	31.4%	0.0%	1.6%	4.9%	4.7%	1.7%
Stage 2	4.3%	30.6%	38.1%	46.0%	23.8%	40.3%	26.2%
Stage 1	2.2%	14.2%	2.4%	1.6%	0.6%	22.3%	6.6%
Stage 0	3.5%	18.7%	21.4%	0.0%	51.8%	10.9%	13.5%
	N = 5462	N = 641	N = 42	N= 63	N = 164	N = 211	N = 229

Cross Country EMRAM Score Distribution

Stage	United States*	Canada*	Australia	New Zealand	Singapore	Malaysia	Thailand	Philippines
Stage 7	3.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Stage 6	22.2%	0.8%	0.4%	0.0%	77.8%	0.4%	0.0%	0.0%
Stage 5	30.8%	0.9%	6.3%	5.0%	0.0%	6.4%	14.9%	0.0%
Stage 4	13.6%	3.3%	0.7%	0.0%	11.1%	2.6%	0.0%	0.0%
Stage 3	19.7%	31.4%	0.7%	0.0%	0.0%	0.4%	1.1%	0.0%
Stage 2	4.3%	30.6%	72.7%	92.5%	0.0%	2.6%	8.0%	1.4%
Stage 1	2.2%	14.2%	2.2%	2.5%	0.0%	2.1%	24.1%	1.4%
Stage 0	3.5%	18.7%	17.0%	0.0%	11.1%	85.4%	51.7%	97.2%
	N = 5462	N = 641	N = 271	N = 40	N = 9	N = 233	N = 87	N = 72

Average EMRAM Scores



Challenges

- High cost to purchase/implement and maintain.
- Building and IT infrastructure readiness.
- Massive change management effort and the associated resistance.
- Availability of experiences resources.
- Interoperability both internally and externally.
- Once it’s in, there is a demand for more.

Keys to Success

- Treat as a clinical/business transformation project, not an IT project, appoint clinical leaders to drive the design and adoption.
- Start by identifying specific benefits you seek and measure your progress against them.
- Don’t re-invent the wheel…benchmark other’s success.
- Staff the project with experienced resources.
- Must be sponsored and driven from the top. Emphazise as a burning platform/priority for the whole organisation.
- Recognise the complexity and level of disruption required.
- Don’t just automate your current processes. Redesign your workflows to take advantage of the technology and improve efficiency.

Keys to Success

- Governance – acknowledge there is both organisational and program governance and appropriately link the two.
- Establish strong, collaborative relationships with key vendors at the executive level.
- Recognize that there is no single integrated solution. Spend time designing and building appropriate system interfaces.
- Respect and embrace good practice in business continuity, high availability and disaster recovery.
- Invest in independent advice and oversight of the project.
- Seek to excel in stakeholder engagement and communication

Thank you

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