Computerized Analytics May Perform much of the Initial Diagnosis and/or Inform the Physician

- Who has perfect memory and can read everything needed? Analytics platforms such as IBM Watson
- Computers have the potential to assist/perform:

  Collecting patient symptoms, patient history, comparing to a large data base, identify successful and poor outcome of various treatments, provide informed recommendation of potential treatments with probabilities of success

- Examples
  - @Point of Care, Modernizing Medicine, QPID, Dxplain, Isabel, etc

Genomic Data will be Added to your Health Records

Correlating Genetics and Patient Parameters with Clinical Choices

Patient Genetics

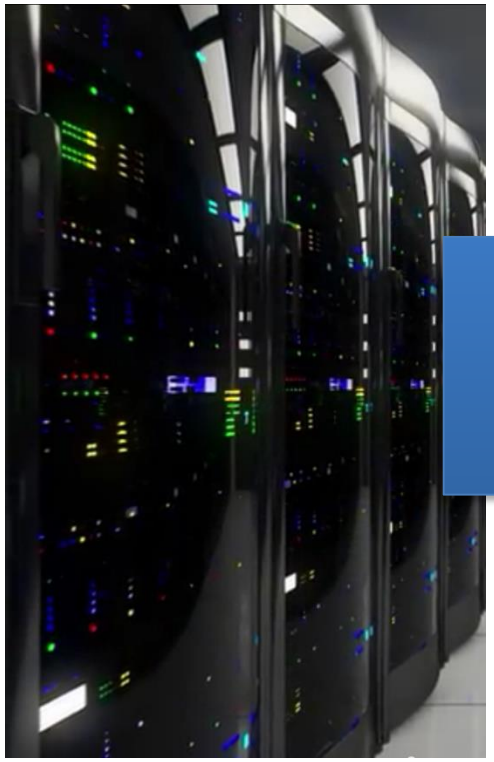
Patient Demographics

Patient Nutrition

Patient Lifestyle

Clinical Parameters
BP, diabetes

Advanced Statistical Correlation



Clinical Guidance

Identification of genetic, clinical and lifestyle risks

Proactive risk mitigation – lifestyle, nutrition, pharmaceuticals

Calculation of progression probabilities

Clinical practice recommendations and treatment choice guidance

Informed pharmaceutical choices

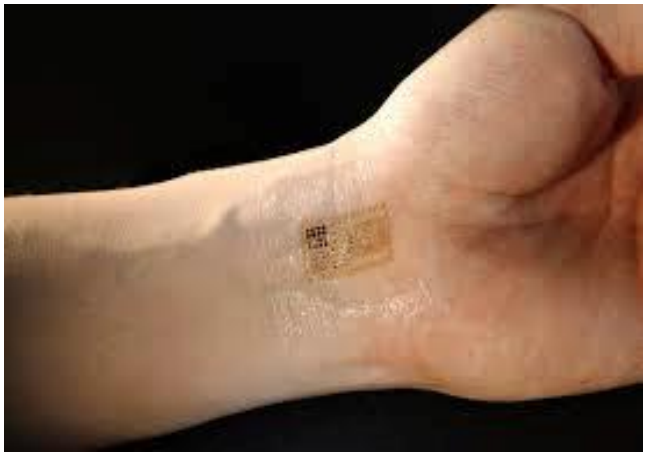
Treatment outcome probabilities

Patient stratification for clinical trials

Data aggregation, population statistics, and trend analysis across network

Increasing Role of Social Media

Real-time Diagnostics from Sensors



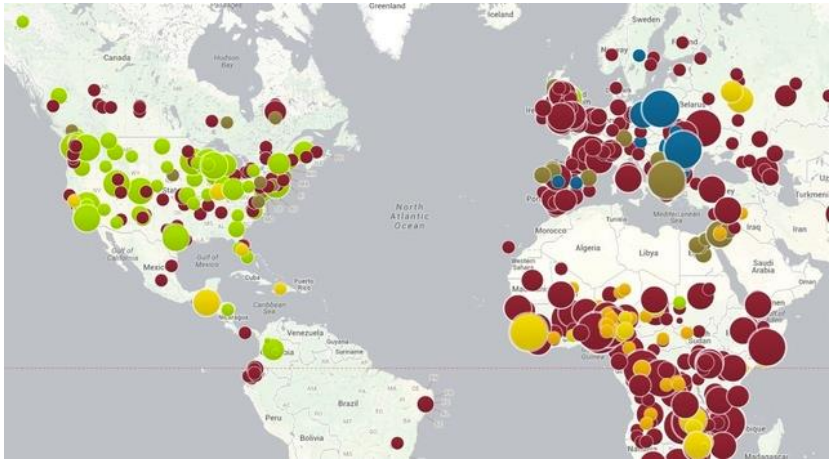
Commercial Efforts such as those by MC10 with their Biostamp technology suite

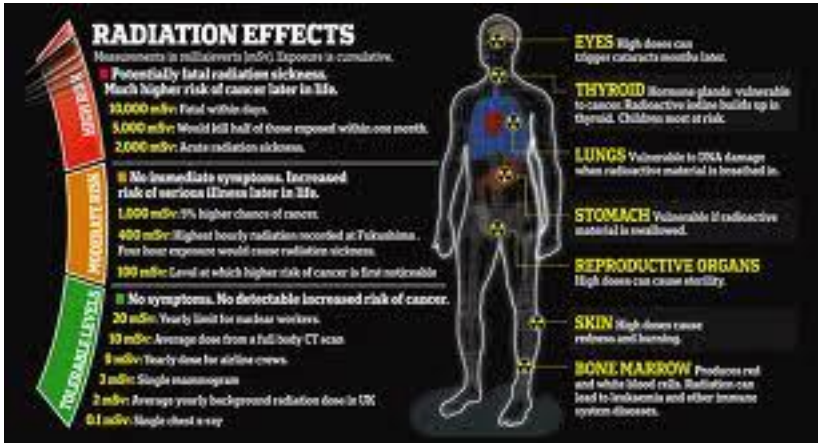
Improved Emergency Care

Emergency room will know your issues and history before you arrive

Specialized field care can be applied based on your history

Reduced Exposure





Data can be collected from social media to track disease spread

Tracking medical radiation exposure more accurately in real time

No child sick waiting rooms

Focus on Health

Use data to demonstrate how you as individual can maintain and improve health

Increased use of health physicians versus care physicians

A Health Journey Map

Genetic Impact

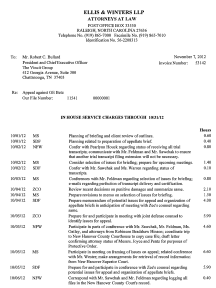
Proactive
Wellness

Social, Cultural
Spiritual Wellness

Healthcare

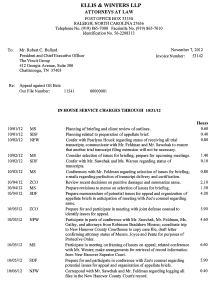
Automating Information Retrevial

Paper Invoice



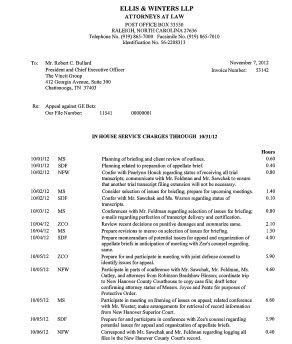
Scanner

Invoice Image

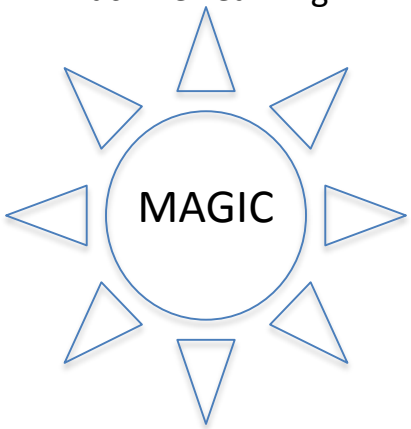


OCR Software

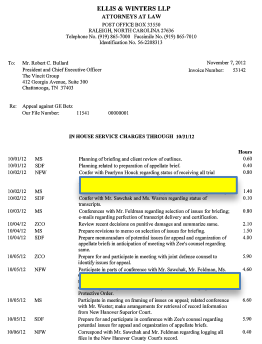
Digital Invoice



Text Analysis and Machine Learning



Annotated Invoice And Data



Rural Clinically Integrated Network

Kansas Heart and Stroke Collaborative

- **3-year, $12.5 million** award from the Center for Medicare and Medicaid Innovation led by the University of Kansas Hospital and a **rural clinically integrated network** including a rural regional referral center, 10 Critical Access Hospitals, primary care providers, and specialists
- Develop a care delivery and payment model to **improve rural Kansans' heart health and heart attack and stroke outcomes** to reduce total cost of care for that population.

Goals

- Reduce total cost of care for target population by **$13.8 million** (1.9 % savings)
- Reduce deaths from heart and cerebrovascular disease by **20 %**

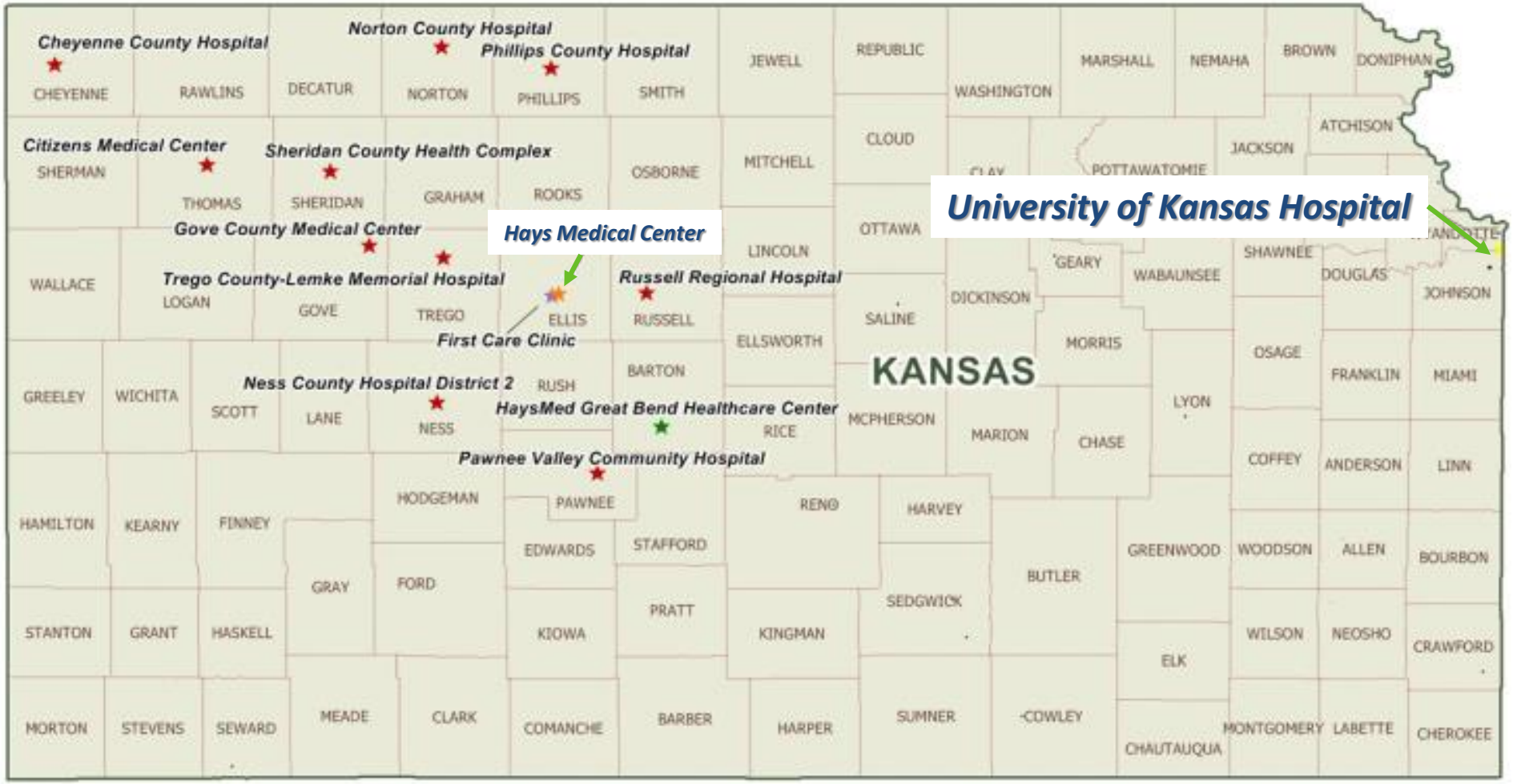
Analytics' Key Role

Functions:

- Identify at-risk patients
- Facilitate interoperable use of population health IT solutions with KHSC staff and vendors
- Track total cost of care for the KHSC patient population

Outcomes:

- Conduct real-time analysis and predictive modeling to develop a transformational payment model that incentivizes and supports treating the target population
- Assist in conducting performance evaluations reported to CMS


Cheyenne County Hospital
Norton County Hospital
Phillips County Hospital
Citizens Medical Center
Sheridan County Health Complex
Gove County Medical Center
Hays Medical Center
Trego County-Lemke Memorial Hospital
Russell Regional Hospital
First Care Clinic
Ness County Hospital District 2
HaysMed Great Bend Healthcare Center
Pawnee Valley Community Hospital
University of Kansas Hospital
KANSAS
CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
BROWN
DONIPHAN
SHERMAN
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
CLOUD
CLAY
POTTAWATOMIE
JACKSON
ATCHISON
WALLACE
LOGAN
GOVE
TREGO
ELLIS
RUSSELL
LINCOLN
OTTAWA
GEARY
WABAUNSEE
SHAWNEE
DOUGLAS
JOHNSON
DICKINSON
SALINE
ELLSWORTH
MORRIS
OSAGE
FRANKLIN
MIAMI
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
RICE
MCPHERSON
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KEARNY
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