



UHN

Toronto General
Toronto Western
Princess Margaret
Toronto Rehab

COURAGE LIVES HERE

SEX, LIES AND BIG DATA: A CIO'S ODYSSEY

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SEX

“New strategy, new system”

UNIVERSITY HEALTH NETWORK

The Research Hospital of the Future



*Toronto General
Hospital*



*Toronto Western
Hospital*



*Princess Margaret
Cancer Centre*



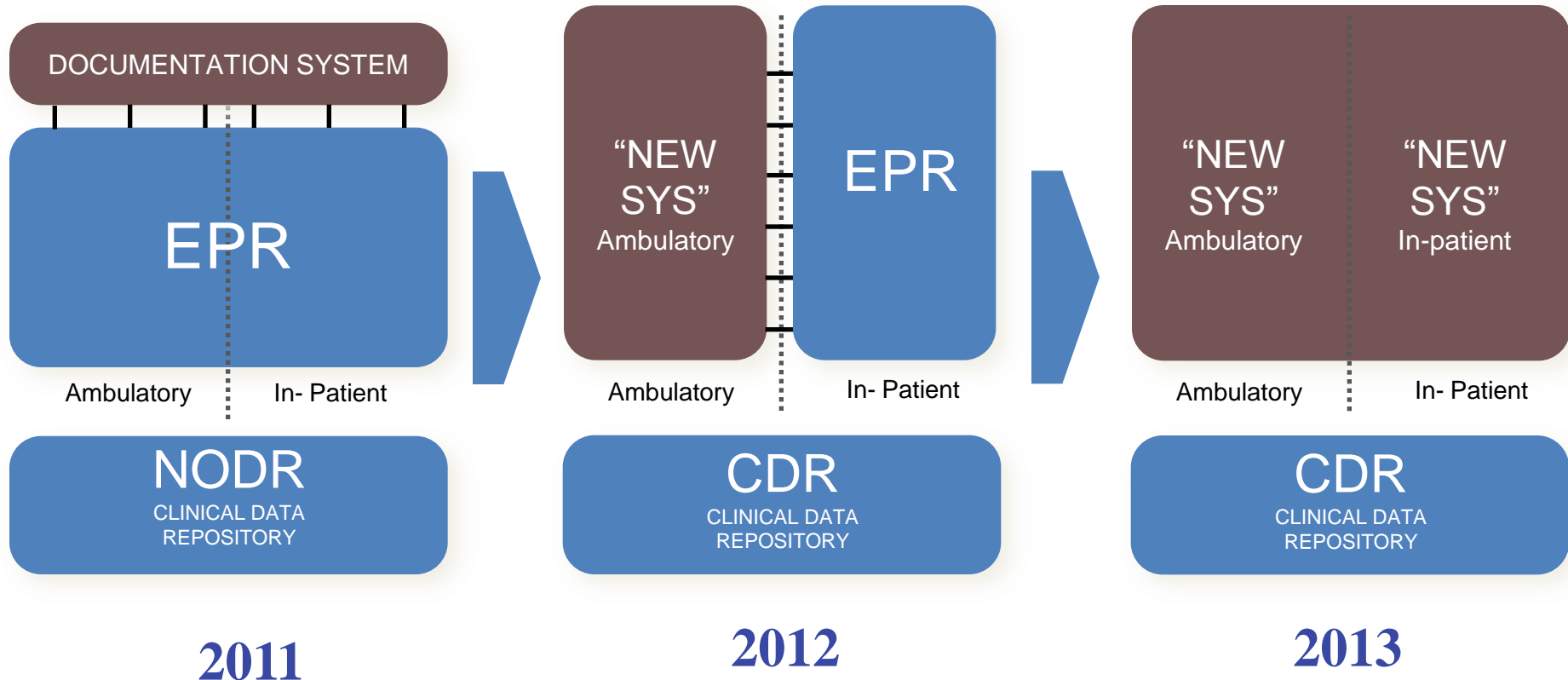
Toronto Rehab

- 4 Hospitals
- \$1.9 billion in revenue
- 14,000 staff
- Top funded research hospital in Canada for 2013

4 of 5 Domains in UHN's Corporate Strategy 2016 require Advanced Clinical Documentation

- **We:**
 - Continue to build organizational capability and capacity
- **Caring:**
 - Become a world leader in documenting and improving patient outcomes
 - Transform “patient-centred care” to “patients as partners in care”
 - Measure and improve the value of care
- **Creative:**
 - Enable the collection, analysis and application of health information
- **Accountable:**
 - Optimize productivity and integration of care through next-generation information management and technology

Advanced Clinical Documentation: Our Journey to Date



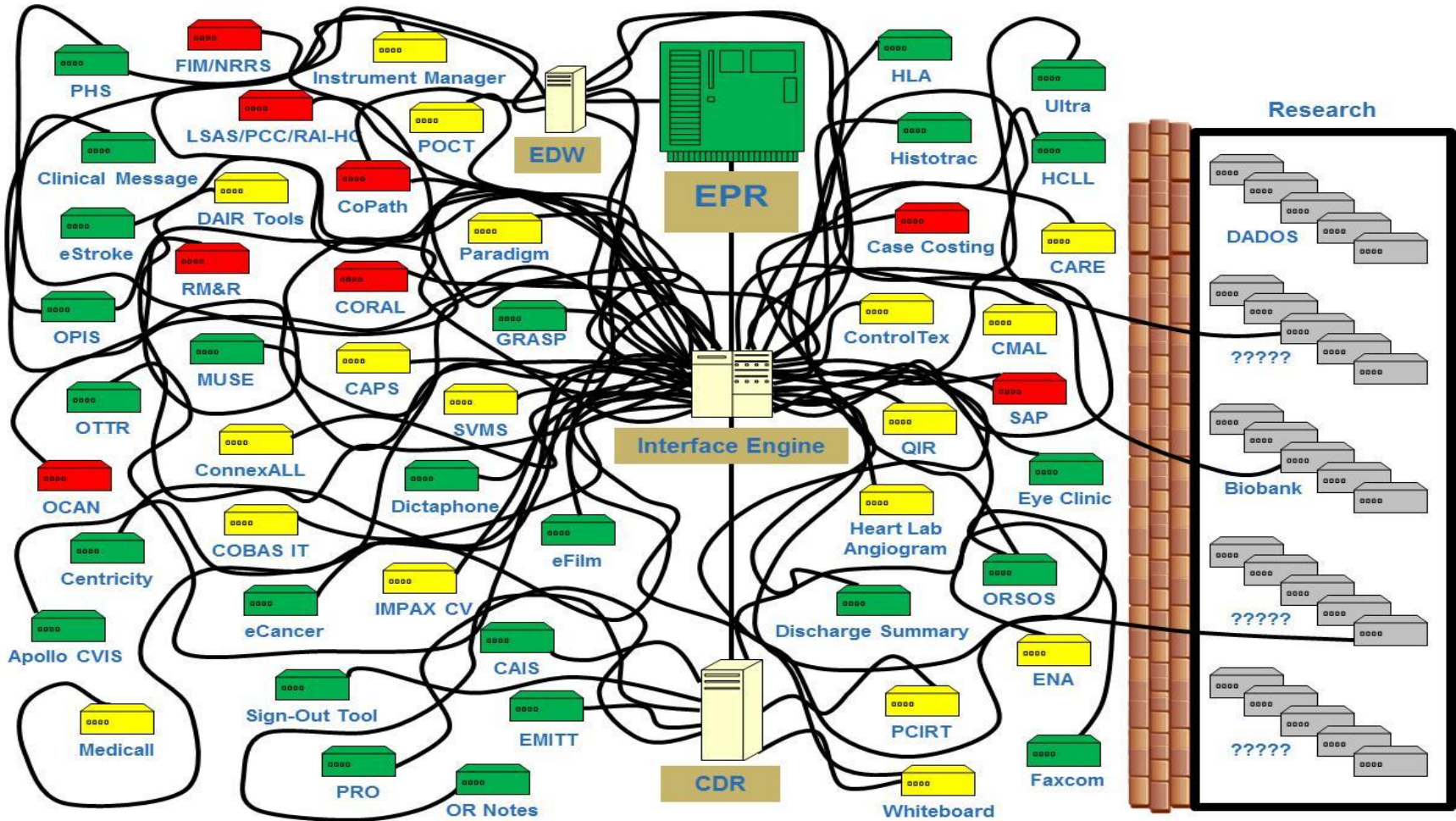
LIES

“We just need to clean up the data...”

UHN Infrastructure by the #s

- Servers: 210 physical: 449 virtual
- Monthly service desk ticket volume: 19,000
- Email boxes: 17,950
- Data Stored on SAN: 179,705 GB
- Backup Data: 225,000 GB
- Wireless Access Points: 1,724 (and growing)
- Devices (laptops, desktops, thin clients): 10,000
- Known clinical systems: 135
- HL7 Interfaces: 231

UHN Application Environment



BIG DATA

“The possibilities are only limited
by our imagination...”

Bariatric Application



No SIM 11:22 AM 10%

Patients Surgeon Assessment

BARIATRIC, Bob (58y) MRN: 7017790 DoB: Nov 05, 1954

Assessment Details

Notes From Nurse

Demographics

Weight History

Surgical History

Medical History

Current Medications

Allergies

Substance Use

Social

Physical Exam

Surgical Annotation

Plan

Risks & Options

Investigations

Consult Note

Read-Only Consult Note

Log out

Vitals

Blood Pressure / mmHg

Heart Rate bpm

O2 Saturation %

Breath Sounds

Adventitious Breath Sounds N/A YES NO

Right upper YES

Left upper NO

Right middle NO

Right lower NO

Left lower YES

Good air entry bilaterally N/A YES NO

Crackles and Wheezes N/A YES NO

Comments

Cardiovascular

S1 (Normal) N/A YES NO

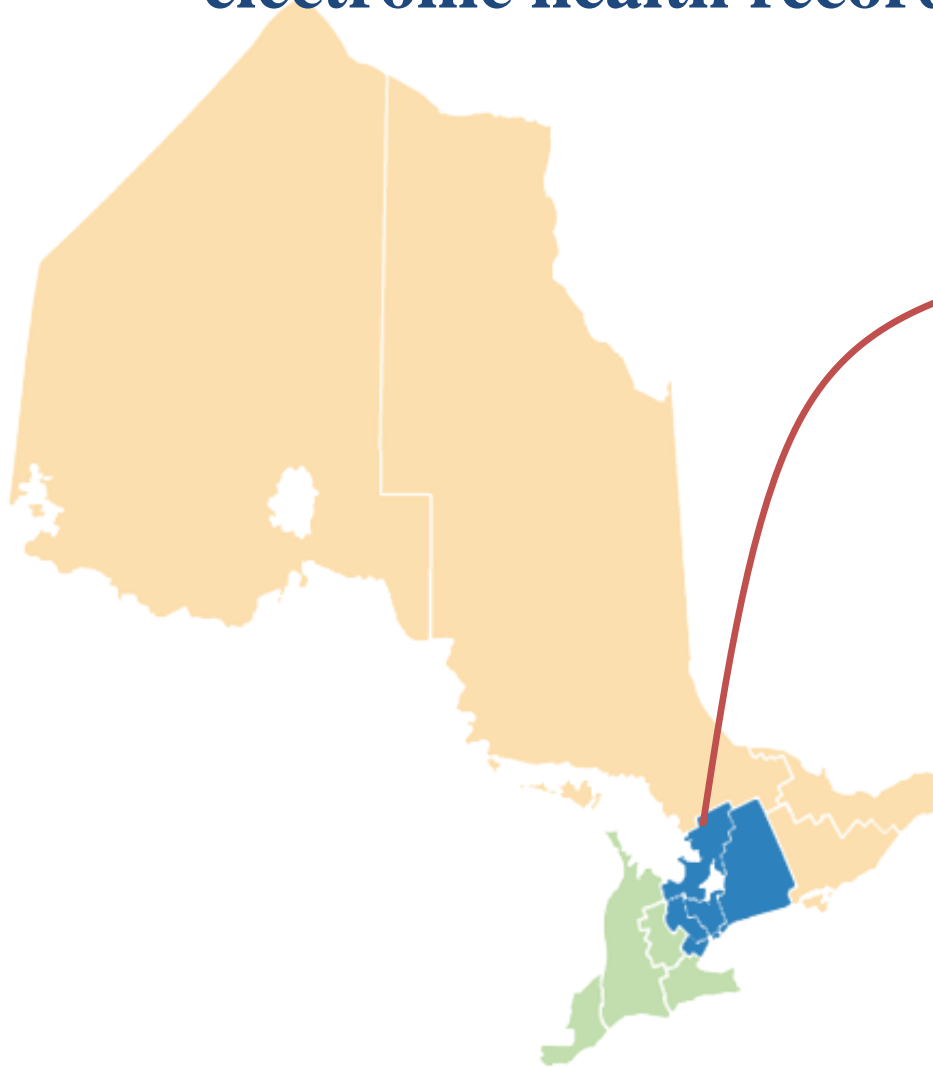
S2 (Normal) N/A YES NO

S2 (Murmur) N/A YES NO

Last updated in Surgeon Assessment by Cammisa, Giuseppe (t27426uhn) on 2013-08-20 14:59:48 v2.0.0

The Bariatric Surgery interdisciplinary documentation tool combines discrete data capture and text information to plan, inform and document the patient's care journey

ConnectingGTA will improve the patient and clinician experience by delivering a regional electronic health record for 6.75M individuals



6 Local Health Integration Networks

750+ Health Care Organizations

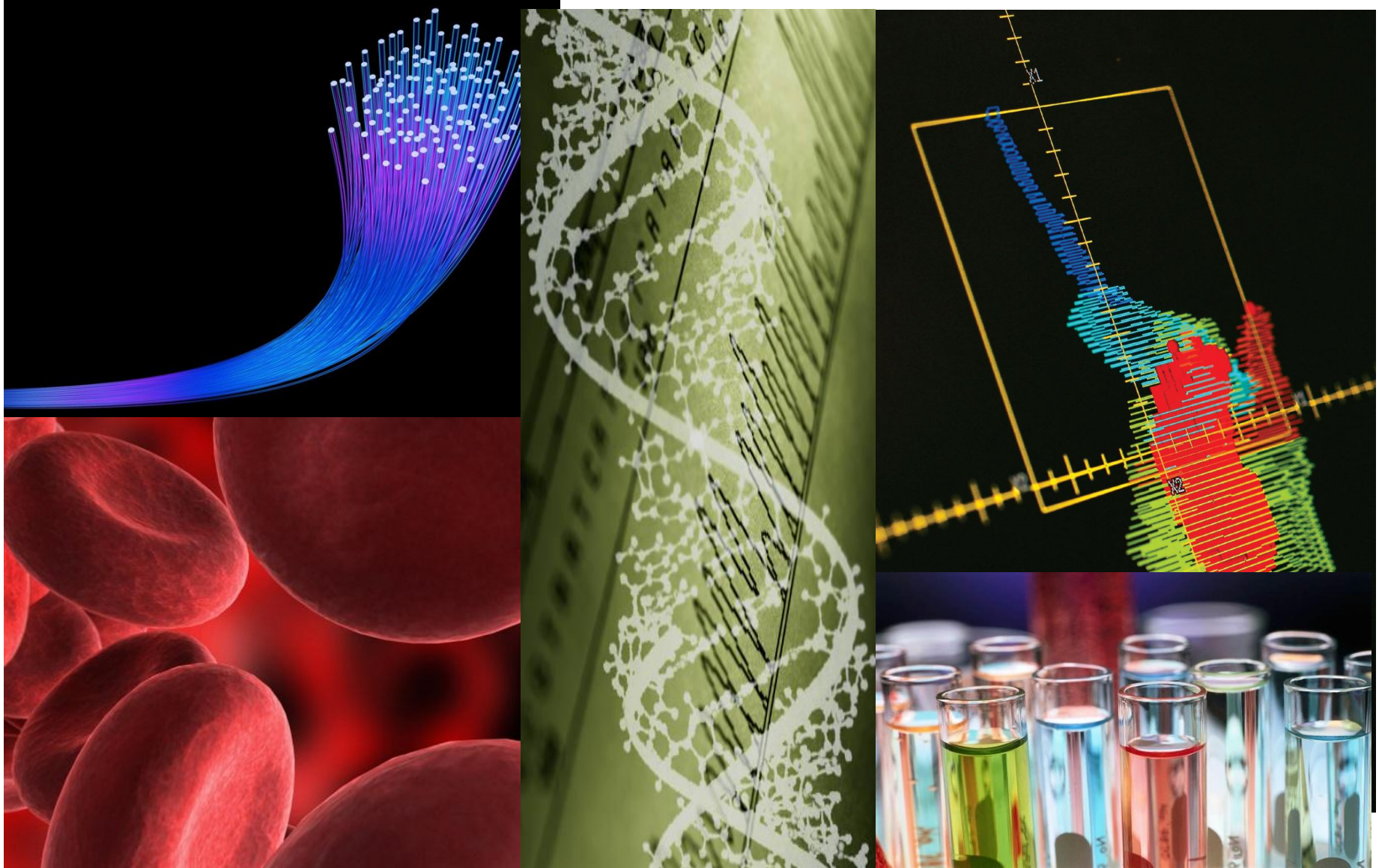
~12,500 Physicians

~49,000 Regulated Health Professionals

All sectors of care:

- Acute Care
- Community Support Services
- Complex Continuing Care
- Long Term Care
- Mental Health & Addictions
- Primary Care
- Rehabilitation

Advanced Analytics & New Discoveries



Monetizing Datasets???



“Texas Department of State Health Services (DSHS) has been selling de-identified patient data to groups who can prove they would use it for research. Some of the roughly 100 buyers from 2009 through 2010 included Blue Cross Blue Shield of Texas, Los Angeles business consulting firm EconOne, and Sanofi Pasteur.”

Source: CNN

“Partners HealthCare, a nonprofit integrated healthcare system, discovered that data mainly from its EHRs can identify trends in drug usage and clinical events, and now conducts post-market surveillance of drugs in an efficient, expeditious and cost-effective way.”



Source: PWC





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