# "Reducing Clinician Burden" Project Overview

## Health Level Seven (HL7)
## Electronic Health Record Work Group (EHR WG)

4 February 2019

Quantifying the EHR Burden
# Surveys Say...

- 3 out of 4 physicians believe that EHRs increase practice costs, outweighing any efficiency savings – Deloitte Survey of US Physicians, 2016

- 7 out of 10 physicians think that EHRs reduce their productivity – Deloitte

- 4 in 10 primary care physicians (40%) believe there are more challenges with EHRs than benefits – Stanford Medicine/Harris Poll, 2018

- 7 out of 10 physicians (71%) agree that EHRs greatly contribute to physician burnout – Stanford/Harris

- 6 out of 10 physicians (59%) think EHRs need a complete overhaul – Stanford/Harris

- Only 8% say the primary value of their EHR is clinically related – Stanford/Harris

Reducing Clinician Burden
# Stakeholders

| WHAT/WHEN – Burden Targeted | WHO – Might Best Address Burden | |
|---|---|---|
| In Clinical Practice – At Point of Care | Providers, Clinical Professional Societies | With Engaged Clinicians |
| In Health Informatics Standards, e.g.<br>• HL7 EHR System Functional Model and Profiles<br>• Messages (HL7 v.2x), Documents (HL7 CDA), Resources (HL7 FHIR)<br>• Implementation Guides (C-CDA, IPS) | Standards Developers/Profilers:<br>• HL7, DICOM, IHE, ISO TC215, NCPDP, ASC X12N...<br>Standards Coordinating Bodies<br>• Joint Initiative Council | |
| In Regulation, Policies | Government, Accreditation Agencies | |
| In Claims, Payment Policies | Public and Private Payers | |
| During System/Software Design | EHR/HIT System Developers/Vendors | |
| During System/Software Implementation | EHR/HIT System Implementers | |

Reducing Clinician Burden
# Defining Terms (DRAFT)

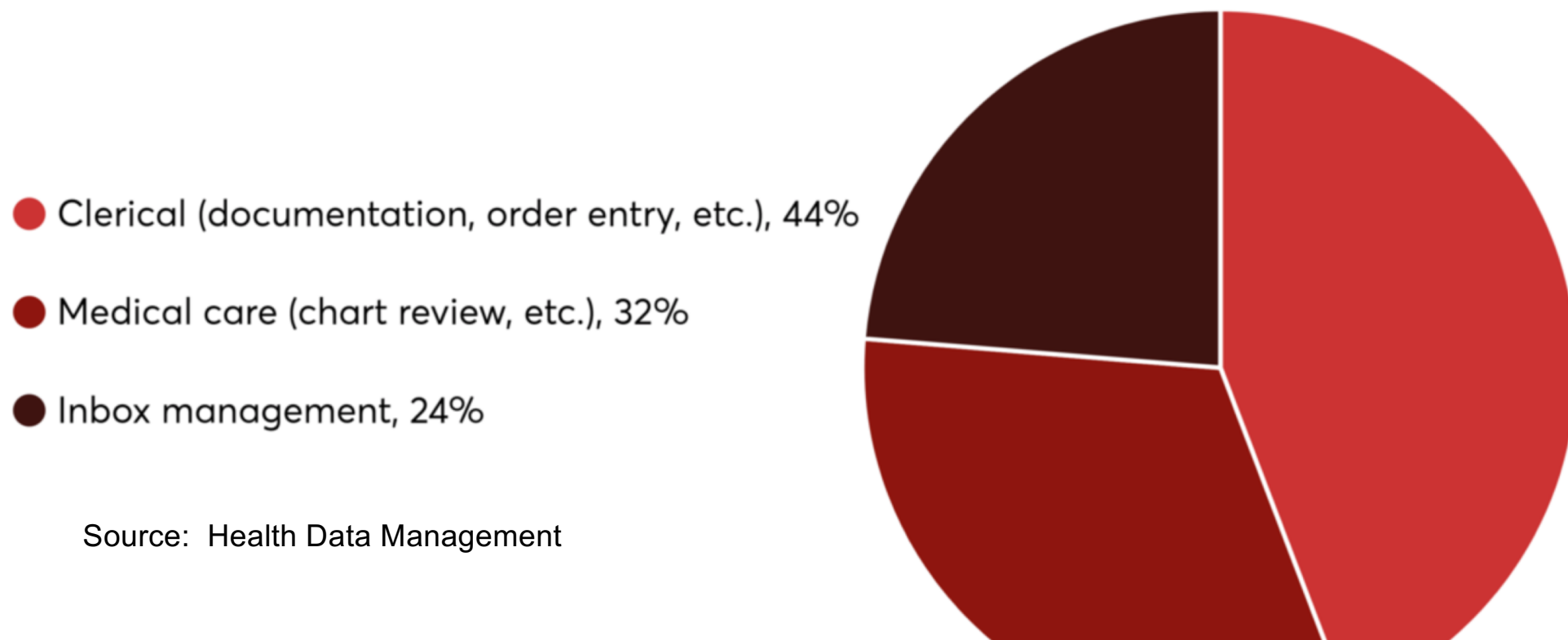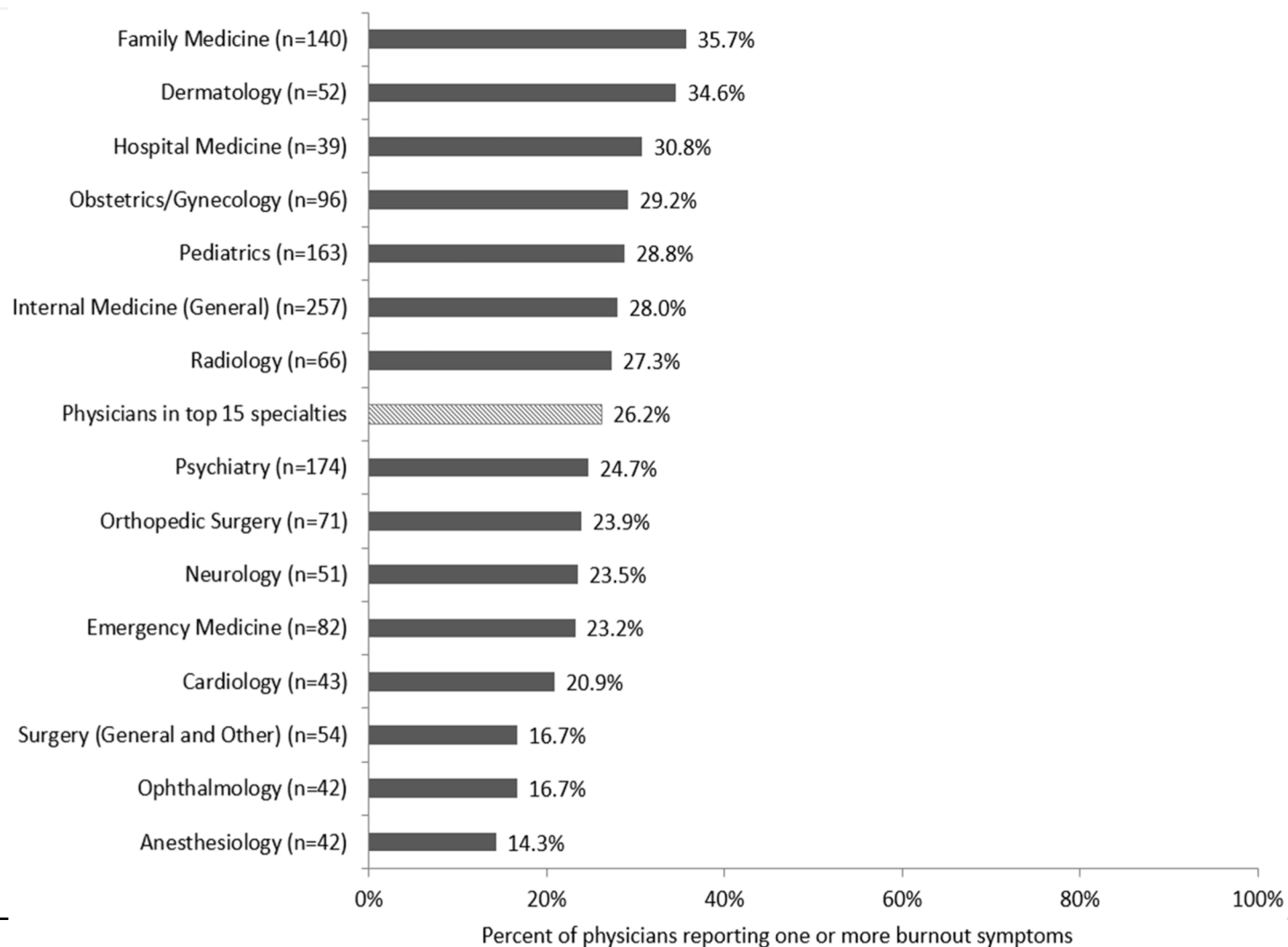| Reducing (reduce) | • "To bring down, as in extent, amount, or degree; diminish", and "To gain control of... [to] conquer", and "To simplify the form of... without changing the value", also "To restore... to a normal condition or position" – The Free Dictionary<br>• "To lower in... intensity" – Dictionary.com<br>• "To narrow down", also "To bring to a specified state or condition" – Merriam-Webster |
|---|---|
| Clinician | • "A health professional whose practice is based on direct observation and treatment of a patient" – Mosby's Medical Dictionary<br>• "An expert clinical practitioner and teacher" – Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health<br>• "A health professional, such as a physician, psychologist, or nurse, who is directly involved in patient care" – American Heritage Medical Dictionary |
| Burden | • "A source of great worry or stress", and "[Something that] cause[s] difficulty [or] distress", also "To load or overload" – The Free Dictionary<br>• "Something that is carried, [as in a] duty [or] responsibility", also "Something oppressive or worrisome" – Merriam-Webster Dictionary |

Reducing Clinician Burden
# Defining Terms (DRAFT)

| Clinician Burden | Anything that hinders patient care, either directly of indirectly [such as]: |
|---|---|
| | 1) Undue cost or loss of revenue, |
| | 2) Undue time, |
| | 3) Undue effort, |
| | 4) Undue complexity of workflow, |
| | 5) Undue cognitive burden, |
| | 6) [Uncertain quality/reliability of data/record content,] |
| | 7) Anything that contributes to burnout, lack of productivity, inefficiency, etc., |
| | 8) Anything that gets in the way of a productive clinician-patient relationship. |
| | -- Peter Goldschmidt |

# How physicians use their computers

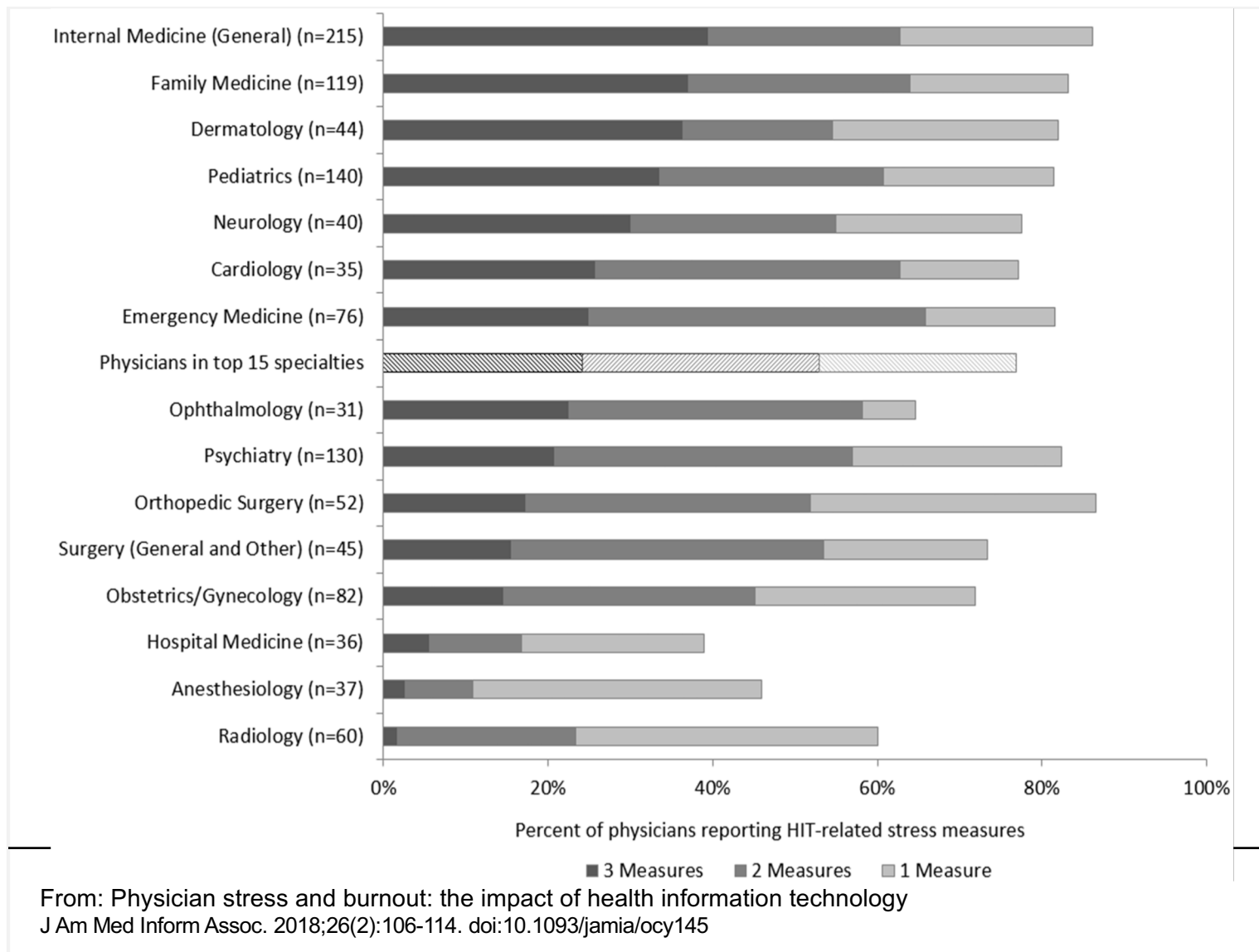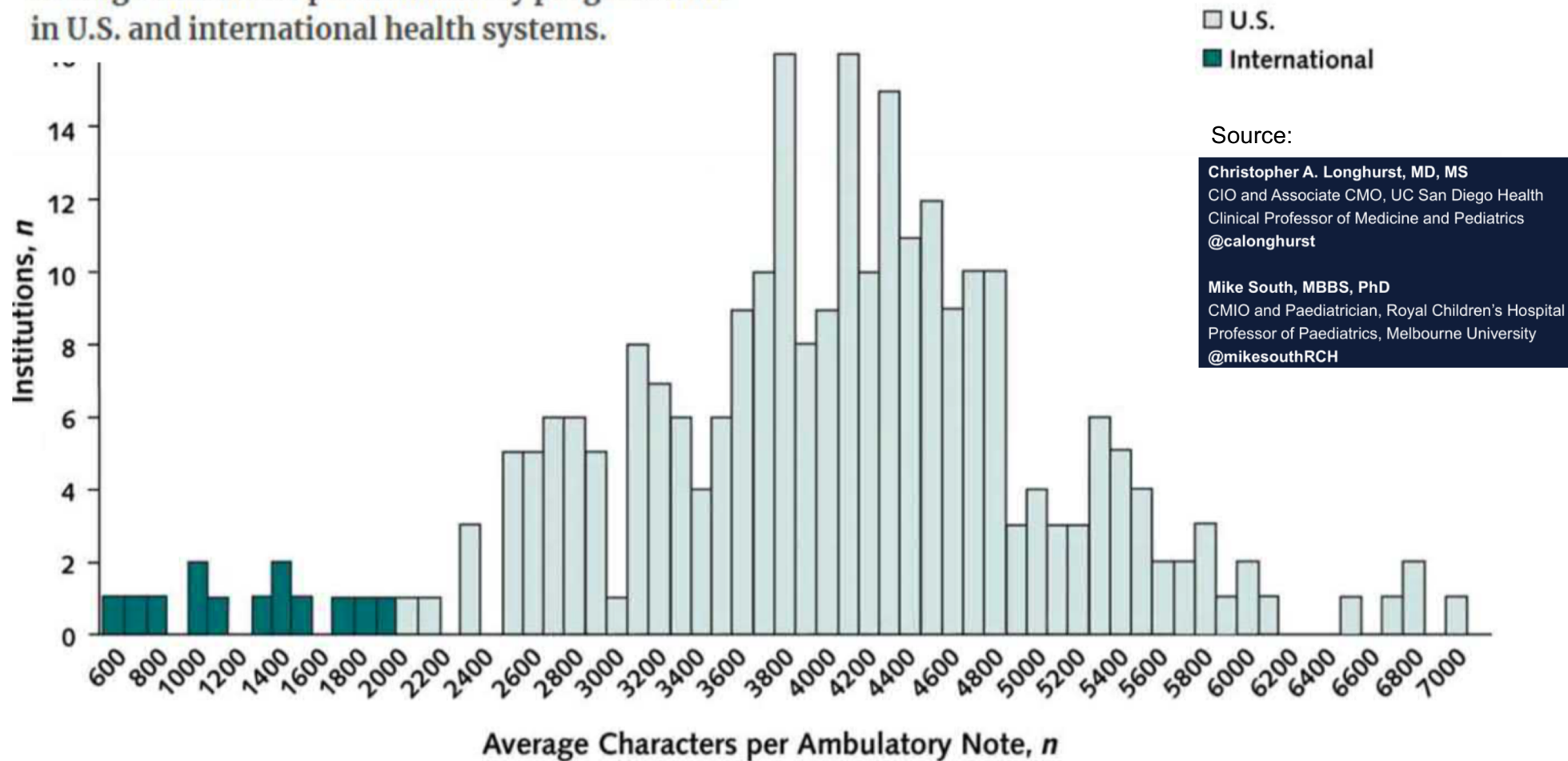Percent of time spent per day by EHR task category

- Clerical (documentation, order entry, etc.), 44%

- Medical care (chart review, etc.), 32%

- Inbox management, 24%

Source: Health Data Management

Family Medicine (n=140) — 35.7%
Dermatology (n=52) — 34.6%
Hospital Medicine (n=39) — 30.8%
Obstetrics/Gynecology (n=96) — 29.2%
Pediatrics (n=163) — 28.8%
Internal Medicine (General) (n=257) — 28.0%
Radiology (n=66) — 27.3%
Physicians in top 15 specialties — 26.2%
Psychiatry (n=174) — 24.7%
Orthopedic Surgery (n=71) — 23.9%
Neurology (n=51) — 23.5%
Emergency Medicine (n=82) — 23.2%
Cardiology (n=43) — 20.9%
Surgery (General and Other) (n=54) — 16.7%
Ophthalmology (n=42) — 16.7%
Anesthesiology (n=42) — 14.3%

Percent of physicians reporting one or more burnout symptoms

Percent of physicians reporting HIT-related stress measures

■ 3 Measures  ■ 2 Measures  □ 1 Measure

Average characters per ambulatory progress note in U.S. and international health systems.

Reducing Clinician Burden
# Assessing the Burden

- Primary focus on <u>clinician burdens including time and data quality burdens</u> associated with:
  - Use/engagement of EHR/HIT systems
  - Capture, exchange and use of health information
- Considering:
  - Clinical practice – at the point of care
  - Regulatory, accreditation, administrative, payor mandates
  - EHR/HIT system design, functionality, usability and implementation
  - Data quality and usability
- Gather details from many reference sources:
  - Trade publications, professional society journals, articles, studies, personal experience
- Goal is not to boil the ocean, rather to understand the extent of the burden.

# Reducing Clinician Burden – Breaking It Down
# Topics/Categories

- 1) Generally
- 2) Patient Safety (and Clinical Integrity)
- 3) Administrative tasks
- 4) Data entry requirements
- 5) Data entry scribes and proxies
- 6) Clinical documentation: quality and usability
- 7) Prior authorization, coverage verification, eligibility tasks
- 8) Provider/patient face to face interaction
- 9) Provider/patient communication
- 10) Care coordination, team-based care
- 11) Clinical work flow
- 12) Disease management, care and treatment plans
- 13) Clinical decision support, medical logic, artificial intelligence
- 14) Alerts, reminders, notifications, inbox management

- 15) Information overload
- 16) Transitions of care
- 17) Health information exchange, claimed "interoperability"
- 18) Medical/personal device integration
- 19) Orders for equipment and supplies
- 20) Support for payment, claims and reimbursement
- 21) Support for cost review
- 22) Support for measures: administrative, operations, quality, performance, productivity, cost, utilization
- 23) Support for public and population health
- 24) Legal aspects and risks
- 25) User training, user proficiency
- 26) Common function, information and process models
- 27) Software development and improvement priorities, end-user feedback

- 28) Product transparency
- 29) Product modularity
- 30) Lock-in, data liquidity, switching costs
- 31) Financial burden
- 32) Security
- 33) Professional credentialing
- 34.1) Identity matching
- 34.2) Identity and credential management
- 35) Data quality and integrity
- 36) Process integrity
- 37.1) Problem list
- 37.2) Medication list
- 37.3) Allergy list
- 37.4) Immunization list
- 37.5) Surgery, intervention and procedure list

Reducing Clinician Burden
# Project Plan

- Now
  - Continue environmental scan – to compile burden topics
  - Engage focus teams to address burden topics
  - Refine, develop targeted recommendations to reduce burdens
  - Identifying:
    - What is the source of the burden?  Including root cause analysis.
    - Who (stakeholder) might best address burden?
    - Burdens tackled: RCB recommendations + proposals and particularly successful solutions

- Then
  - Publish and work to implement recommendations

Reducing Clinician Burden
# Focus Teams

- Clinical documentation, quality and usability
  - Lead: Dr. Lisa Masson (Lisa.Masson@cshs.org)
- Clinical decision support, medical logic, artificial intelligence + Alerts, reminders, notifications, inbox management + Information overload
  - Lead: Dr. James McClay (jmcclay@unmc.edu)
- Clinical workflow
  - Lead: Dr. David Schlossman (dschloss39@gmail.com)
- Legal aspects and risks
  - Lead: Dr. Barry Newman (barrynewman@earthlink.net)
- System lock-in, data liquidity, switching costs
  - Lead: Dr. Michael Brody (mbrody@tldsystems.com)
- State of data content quality
  - Leads: Dr. Reed Gelzer (r.gelzer@snet.net), Gary Dickinson (gary.dickinson@ehr-standards.com)

Reducing Clinician Burden
# Focus Teams (con't)

- Anticipated:  More teams to form (convened on RCB topics)
- To participate:  Contact team lead
- Process is open, transparent and inclusive – All are welcome!

Reducing Clinician Burden
# Additional Considerations

- What are the risks if burden is not reduced?
  - e.g., clinician burnout, clinicians choosing other roles/assignments
- If clinician burdens are reduced...
  - Are burdens increased elsewhere (e.g., to other members of the healthcare team)?
  - Are benefits to other aspects of the health/healthcare business model also reduced?
  - What is the trade-off:  Safety?  Cost?  Time?  Efficiency?  Effectiveness?

Reducing Clinician Burden
# Schedule

- Bimonthly teleconferences, Monday at 3PM ET (US)
  - 1st and 3rd Mondays each month
    (4 and 18 February, 4 and 18 March, 1 April)
  - https://global.gotomeeting.com/meeting/join/798931918
- Focus teams meet independently:  TBA

Reducing Clinician Burden
# Contact

- Comments on the DRAFT analysis worksheet are welcome (including additional reference sources) and should be addressed to the HL7 EHR WG Co-Chairs:
  - Gary Dickinson FHL7, Lead:  gary.dickinson@ehr-standards.com
    CentriHealth/UnitedHealth Group
  - Michael Brody DPM:  mbrody@tldsystems.com
    TLD Systems
  - Stephen Hufnagel PhD:  stephen.hufnagel.hl7@gmail.com
    Apprio Inc
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    Medical Networks LLC
  - John Ritter FHL7:  JohnRitter1@verizon.net
  - Pele Yu MD:  Pele.Yu@archildrens.org
    Arkansas Children's Hospital/University of Arkansas

Reducing Clinician Burden
# Reference Points

- Latest Project Documents
  - Project overview
  - DRAFT Analysis worksheet
  - Links to reference sources
    - http://wiki.hl7.org/index.php?title=EHR_Interoperability_WG#HL7_.22Reducing_Clinician_Burden.22_.28RCB.29_Project

- Comments may also be directed to:
  - US Centers for Medicare/Medicaid Services (CMS)
    reducingproviderburden@cms.hhs.gov

Reducing Clinician Burden
# Analysis Worksheet – Tabs

1. Burdens
2. Time Burdens
3. Data Quality Burdens
4. Terms:  Reducing, Clinician, Burden
5. Reference Sources
6. Leads:  EHR WG Co-Chairs
7. Acknowledgements:  Reviewers + Contributors
8. Topics

Reducing Clinician Burden
# Analysis Worksheet – Columns

B) Clinician Burdens (the current situation) – Raw Input

C) Recommendations – Raw Input

D) Reference Sources

E) Targeted RCB Recommendation(s) – refined from our reference (and other) sources

F) RCB Proposals and Successful Solutions

Reducing Clinician Burden Project

# Outreach + Expressed Interest

- Standards Developers
  - Joint Initiative Council (JIC), comprising HL7, ISO TC215 (HIT), CEN TC251 (HIT/Europe), DICOM (Diagnostic Imaging), CDISC (Clinical Research), GS1 (IDs/Labeling), SNOMED (Clinical Vocabulary), IHE (Standards Profiling), PCHCA (Personal Connectivity)
- International Healthcare Community
  - Australia, Canada, Finland, Italy, Netherlands, New Zealand, Sweden, United Kingdom
- Government
  - US Centers for Medicare and Medicaid Services (CMS)
  - US Office of National Coordinator for HIT (ONC)
  - US National Institutes of Health (NIH)
  - US Veterans Administration (VA)
  - UK National Health Service (NHS)
- Accreditation Bodies
  - Joint Commission

- Clinical Professional Societies
  - American College of Physicians (ACP)
  - American College of Surgeons (ACS)
  - American Medical Informatics Association (AMIA)
  - American Nurses Association (ANA)
- Providers
  - Adventist Health, Beth Isreal/Deaconess, Cedars-Sinai Medical Center, Duke University, Intermountain Healthcare, Kaiser Permanente, Loma Linda University, Mayo, Sutter Health, University of Arkansas, University of Nebraska, VA
- Payers
  - UnitedHealth Group
- EHR/HIT System Developers
  - CentriHealth, Cerner, Epic, TLD Systems
- Consortia
  - Health Record Banking Alliance
  - Health Services Platform Consortia
  - Clinical Information Interoperability Council