“Reducing Clinician Burden”
Project Overview

Health Level Seven (HL7)
Electronic Health Record Work Group (EHR WG)
17 January 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
THE MODERN MEDICAL TEAM

CASE MANAGER

UTILIZATION REVIEWER

BILLING SUPERVISOR

INSURANCE

DISCHARGE PLANNER

DOCTOR

NURSE
## Reducing Clinician Burden

### Stakeholders

<table>
<thead>
<tr>
<th>WHAT/WHEN – Burden Targeted</th>
<th>WHO – Might Best Address Burden</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>In Clinical Practice – At Point of Care</td>
<td>Providers, Clinical Professional Societies</td>
<td></td>
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</tbody>
</table>
| In Health Informatics Standards, e.g.  
  • HL7 EHR System Functional Model and Profiles  
  • Messages (HL7 v.2x), Documents (HL7 CDA), Resources (HL7 FHIR)  
  • Implementation Guides (C-CDA, IPS) | Standards Developers/Profilers:  
  • HL7, DICOM, IHE, ISO TC215, NCPDP, ASC X12N...  
  Standards Coordinating Bodies  
  • 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

Assessing the Burden

• Primary focus on clinician burdens including time and data quality burdens associated with:
  • Use/engagement of EHR/HIT systems
  • Capture, exchange and use of health information

• Consider:
  • 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

## 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  
| | “To lower in... intensity” – Dictionary.com  
| | “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  
| | “An expert clinical practitioner and teacher” – Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health  
| | “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  
| | “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 or 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
### EHR role in burnout varies by specialty

Top three physician types reporting work impacts from using electronic records vs. those least affected

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>General internists</td>
<td>39.5%</td>
</tr>
<tr>
<td>Family medicine physicians</td>
<td>37%</td>
</tr>
<tr>
<td>Pediatricians</td>
<td>33.6%</td>
</tr>
<tr>
<td>Hospitalists</td>
<td>5.6%</td>
</tr>
<tr>
<td>Anesthesiologists</td>
<td>2.7%</td>
</tr>
<tr>
<td>Radiologists</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Source: Rhode Island Department of Health survey
Average characters per ambulatory progress note in U.S. and international health systems.

Source:

Christopher A. Longhurst, MD, MS
CIO and Associate CMO, UC San Diego Health
Clinical Professor of Medicine and Pediatrics
@calonghurst

Mike South, MBBS, PhD
CMIO and Paediatrician, Royal Children’s Hospital
Professor of Paediatrics, Melbourne University
@mikesouthRCH
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
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
  • Identify:
    • What is the source of the burden?
    • Are there recommendations to address the burden?
    • Who (stakeholder) might best address burden?
    • Burdens already tackled: with proposals and/or successful solutions
  • Respond to ONC Draft Strategy

• 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)
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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!
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Tasks for Volunteers

- Review/evaluate **US ONC DRAFT “Strategy on Reducing Regulatory and Administrative Burden Relating to the Use of Health IT and EHRs”**
  - Develop HL7 Comments
  - Offer background and source materials for others to comment

- Review Recent US CMS Initiatives and Impact on RCB
  - CMS Patients over Paperwork Initiative:
    - [Link 1](#) [Link 2](#)
  - CMS Meaningful Measures:
    - [Link](#)
  - CMS Evaluation and Management Guidelines:
    - [Link 1](#) [Link 2](#)

- Refine Our RCB Terms
ONC Draft Strategy

Focus on Common Solutions

• US Office of National Coordinator (ONC) DRAFT Strategy on Reducing Regulatory and Administrative Burden Relating to the Use of Health IT and EHRs
  (published 28 November 2018, comments due 28 January 2019)
  • “Specific sources of clinician burden... will require coordinated action on the part of a variety of stakeholders across the health care system, including federal, state, local, territorial, and tribal government entities, commercial payers, clinical societies, electronic health record (EHR) developers, various health care provider institutions, and other service providers.”
  • “ONC can help to lead the health IT industry towards common solutions that result in reduced burden for clinician users by promoting common standards for health IT systems that support greater efficiency and interoperability, as well as best practices for usability of these systems.” [emphasis added]
ONC Draft Strategy

Three Primary Goals

“The ONC report outlines three primary goals informed by extensive stakeholder outreach and engagement for reducing health care provider burden:

1. “Reduce the effort and time required to record information in EHRs for health care providers during care delivery.

2. “Reduce the effort and time required to meet regulatory reporting requirements for clinicians, hospitals, and health care organizations.

3. “Improve the functionality and intuitiveness (ease of use) of EHR [systems].”
Reducing Clinician Burden

To Be Considered

- 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?
Reducing Clinician Burden

Schedule

• Bimonthly teleconferences, Monday at 3PM ET (US)
  • 1st and 3rd Mondays each month
    (NOT 21 January, 4 and 18 February, 4 and 18 March, 1 April)
  • Register at GoToWebinar:
    https://attendee.gotowebinar.com/register/531901239568806403
    (After registering, you will receive a confirmation email containing information about
    joining the webinar.)
• Focus teams meet independently: TBA
• Face-to-face
  • HL7 Meeting in San Antonio
  • Thursday, 17 January 2019, 9AM to 12:30PM
Reducing Clinician Burden

Contacts

• 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
  • Mark Janczewzki MD: mark.janczewski@gmail.com
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  • 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#Reducing_Clinician_Burden_Project

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

1. Review RCB project overview
2. Review RCB Analysis Worksheet
3. Review comments submitted to the HL7 Policy Advisory Committee regarding the ONC Draft Strategy
4. Get reports from focus team leads, as available
5. Consider how to incorporate recommendations to fully remove burdens
6. Develop template to capture burden reduction success stories
7. Other business
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