

# **Primary care data standards:**

**what do we have now?**

**What do we still need?**

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**University of Michigan**  
**Department of Family Medicine**

# ...from the FFM report:

“ A standardized electronic health record, adapted to the specific needs of family physicians and the patients they serve, will constitute the central nervous system of the New Model Practice.”

“...electronic health record systems must permit the collection, analysis, and reporting of the clinical decisions and their outcomes that primary clinicians make every day.”

“The system should provide an informatics infrastructure that supports practice-based research, quality improvement, and the generation of new knowledge.”

# The clinical domain of primary care.

## ■ PEOPLE

## ■ PROBLEMS

Past / present / future (risks) / treatment

## ■ CONTEXT

Preferences / goals / priorities / life events

## ■ TIME

# Things we need to know (a short list)

- **Who has \_\_\_\_\_?** [disease registries]
  - *the basis for point-of-care decision support*
  - *enables valid quality assessment, improvement*
- **Who gets \_\_\_\_\_?** [the probability of specific diagnoses from common presenting symptoms]
  - *basic clinical epidemiology in primary care*
  - *requires capture of episodes of care*
- **What else is going on with this patient?**
  - *competing demands, social problems, patient priorities*
  - *multimorbidity*
- **What happened Out There?**

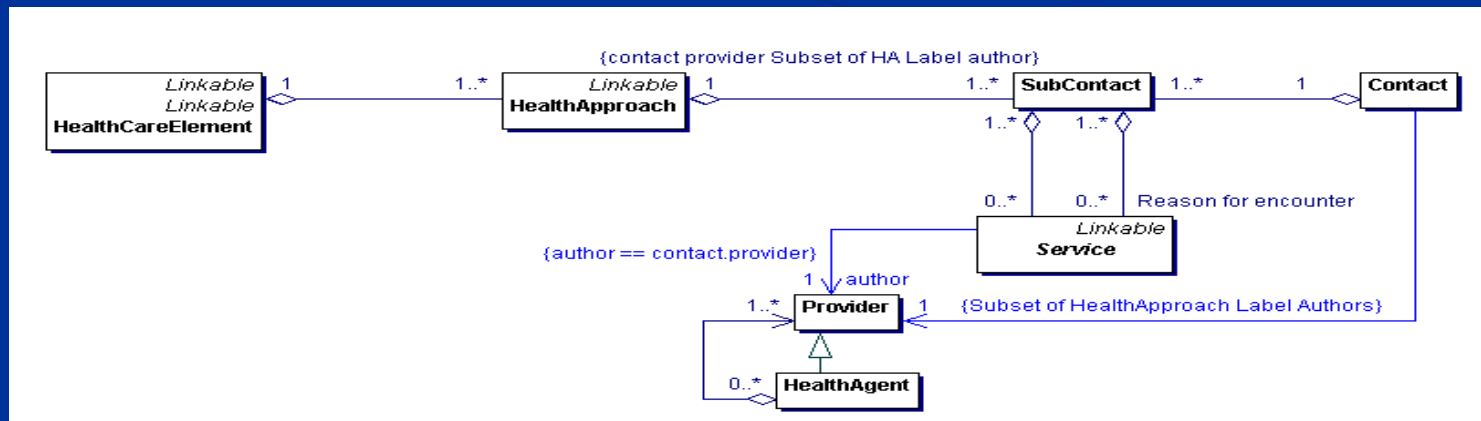
**Robust simplicity.**

“It’s the core clinical office of transactions, of note taking, of record keeping, of data access that still is languishing, and no surprise – they’re the most complicated in terms of technology, culture, and workflow, and I think they’re obviously the next big area.”

*David Brailer, MD, PhD*

*National Coordinator for Health Information Technology*

*Interview published in BMJ, 16 October 2004*



# INPUTS

**Patients**  
[templates or interface terminologies]

**Clinicians**  
[natural language, interface terminologies, classifications]

**Automated data feeds**  
[HL7, XML]

# STRUCTURE

**Person:**  
demographics  
social structure  
goals, preferences

**Problem(s):**  
current/active  
severity

**Clinical Modifiers:**  
prevention  
risk factors  
Significant events

**Actions ("Process"):**  
Decisions  
Interventions  
Plans

**Time:**  
Episode structure

**Data import/export:**  
Exchange protocols

# OUTPUTS

**Aggregate views**  
*Disease registries  
HEDIS  
Quality assessment  
Comorbidity*

**Aggregate longitudinal views**  
*Prior probabilities  
Posterior probabilities  
Episode analysis  
Risk factor-to-disease*

**Cross-sectional patient views**  
*Active problems  
"dashboard"  
summary [CCR]  
severity monitoring  
prompts, reminders  
visit view [template]*

**Longitudinal patient views**  
*episode history  
comorbidity*

**User-defined views**  
*Third-party payors  
Statistical reporting  
Patient safety*

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- prevention
- risk factors
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**Primary care data model:  
simple building blocks to create complex reality.**



**Person:**

demographics  
(ICPC) **missing**  
social structure  
goals, preferences

**Problem(s):**

current/active  
ICPC ICD-9-CM  
severity

**Clinical Modifiers:**

prevention  
**missing**  
risk factors  
Significant events

**Actions (“Process”):**

Decisions  
(ICPC) (CPT)  
Interventions  
Plans

**Time:**

ICPC  
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**In progress**

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HEDIS  
**ClinfoTracker**  
Comorbidity

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Prior probabilities  
Posterior probabilities  
**Transhis**  
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severity monitoring  
prompts, reminders  
(ClinfoTracker)

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HEDIS  
**UMHS**  
Comorbidity

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Prior probabilities  
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**We need local control over inputs and outputs- data entry and data retrieval.**

by payors reporting fety

# Fitting existing parts together to support primary care HIT.

