

**Component 2: The Culture of Health Care**

4.1 Unit 4: Health care processes and decision making

4.1.a1 The Clinical Process- Overview of The Classic Paradigm

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**The Classic Paradigm**

**Patient**                      **Clinician**

*various  
tools  
mediate  
process*

**Problem**

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**Classic Paradigm**

Evolution of tools that support the task

- "Central Theorem of Health Informatics"
  - human + computer > human alone
- Classic Paradigm in Health Informatics
  - one patient
  - one problem
  - one clinician
  - one visit
- Technologies support 1:1:1:1

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### Attributes of Clinician

- possesses specialized knowledge
- received experiential training
- has direct relationship with patient
- makes decisions about patient care
- acts in patient's best interest
- integrates diverse types of information
- functions within time & resource constraints

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### Types of information

Patient Data	refers to one person	patient, family, records, observation
Population Statistics	aggregated patient data	colleagues, public health dept, EHR
Medical Knowledge	generalizable to many persons	textbooks, reviews articles, MEDLINE
Logistic Information	How to get things done	people (RN, HUC), policy and procedure
Social Influence	How others get the job done	observe and discuss w/ colleagues

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### Organization

How clinicians organize information?

- Narrative structure
  - Hunter *Doctor's Stories: The Narrative Structure of Medical Knowledge*
- History and Physical format
- Evans & Gadd hierarchy
- S O A P note
- Textbook structure
- Ad hoc structures
- Computable structure

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"Disease hides its secrets in a casual parenthesis"

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How stories fit into health system

- Between Patient and Clinician
  - Facts embedded in story (meaning to clinician)
  - Meaning of the illness to the patient
  - Communication and relationship building
  - Therapeutic value
  - Important aspect of quality received/perceived by patient

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How stories fit in ... part 2

- Among Clinicians
  - Efficient communication among experts
  - Values and ethics are communicated through stories
- How do health systems (and HIT) deal with stories?
  - eliminate or alter them
  - reduce opportunities for them
  - extract (incomplete) information from them

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### Interpretation

How clinicians understand clinical data

- Disciplinary differences
  - Psychiatry vs Neurology
- Diagnostic process
  - Differing approaches to interpreting clinical data
- Social construction
  - Meaning arising from discourse and consensus
- Context
  - Meaning depending on patient context, clinician context, setting, other constraints

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### Beyond the Classic Paradigm Collaboration in Surgery

	patients	problems	clinicians	visits
classic paradigm	1	1	1	1
operating room	1	1	many	1

- ▶ single condition or disease
- ▶ multiple disciplines
- ▶ multiple roles and tasks
- ▶ short time horizon
- ▶ advance planning, resource rich
  
- ▶ technologies support collaboration and individual action

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### Beyond the Classic Paradigm Uncertain, complex, high stakes

	patients	problems	clinicians	visits
classic paradigm	1	1	1	1
operating room	1	1	many	1
acute complex illness	1	many	many	1 or more

- ▶ acute complex illness
- ▶ multiple disciplines, roles, tasks
- ▶ short time horizon
- ▶ unplanned events
- ▶ uncertain data
- ▶ focus on immediate goals
- ▶ need for flexibility - dynamic replanning

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### Beyond the Classic Paradigm Many to many relationships

	patients	problems	clinicians	visits
classic paradigm	1	1	1	1
operating room	1	1	many	1
acute complex illness	1	many	many	1 or more
emergency dept.	many	many	many	1

▶simultaneous care of multiple acute and non-acute  
 ▶very short time horizon - "treat 'em and street 'em"  
 ▶planning for the unexpected  
 ▶resources constrained  
 ▶coordination, cooperation, collaboration

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### Steps in Classic Process

- What is the matter?
  - diagnosis
- What can be done?
  - treatment
- What will happen?
  - prognosis
- Gathering data
- Analyzing findings
- Making a diagnosis
- Choosing treatment
- Communicating the plan

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