



# Improving and Reforming Long-term Care

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## Part 1: The Biological Foundation



# “Reform”

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- Much said about “health care reform”
- Reform
  - Improve by alteration or correction of errors or defects and put into a better condition
  - Make changes for improvement in order to correct abuses
    - Source:  
<http://www.google.com/search?hl=en&q=define%3A+reform&btnG=Google+Search&aq=f&oq=>



# Reform: Prerequisites

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- To reform something effectively, it helps to understand what we are trying to improve
  - Nature and components
  - Causes of imperfections and problems
    - Including root causes
  - What it should look like when done
    - What should be changed or strengthened
  - Options for changing things
  - Obstacles to implementing reform
  - Options for overcoming obstacles



# Who Can Reform What?

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- Legislatures and political processes are limited in bringing about true reform
- Many patients, doctors, and providers are having trouble changing their actions and thinking
- “In American culture, prescriptions and procedures have become surrogates for real health care and real dialogue,” Dr. Newman said. “We need doctors and patients to conceive of medicine and health in a totally different way than they have been taught in the last 20 to 30 years.”
  - Source:  
<http://www.nytimes.com/2009/03/03/health/03well.html?scp=14&sq=health%20care&st=cse>



# Reform Hurdles

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- “AMA to White House: Don't Dictate Care” [3/9/09]
  - [http://www.healthleadersmedia.com/content/229394/topic/WS\\_HLM2\\_HR/AMA-to-White-House-Dont-Dictate-Care.html](http://www.healthleadersmedia.com/content/229394/topic/WS_HLM2_HR/AMA-to-White-House-Dont-Dictate-Care.html)
- “Any attempts by federal government to use evidence-based medicine to dictate how physicians provide individualized care would be a deal breaker”



# Reform Hurdles

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- It isn't just patients and doctors
- Health care reflects and impacts all major social institutions
  - Education, government, economics / commerce, families, law
- Oversight, attempts to change performance, enforcement all reflect and influence health care
  - Reflect beliefs and methods; for example, how to investigate, draw conclusions, define truth, identify correct actions, attribute cause and effect



# NH Reform

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- It is possible to give competent, person-centered care anywhere
  - Some already do a fine job
  - Others are trying
  - Still others are increasingly lost
- Many “reform” efforts
  - What is the desired endpoint?
  - How much oversight is enough?
  - How is desired improvement to be attained?



# NH Reform Efforts

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- How much do current efforts really being about meaningful change and set appropriate expectations?
- Not surprisingly, current approaches are
  - Often uncoordinated
  - Sometimes self-contradictory
  - Don't consistently result in key elements of good care
    - Especially, good problem definition or understanding of causes



# Reform

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- Improving care
  - We cannot just assume that current approaches are really helping
    - Some could actually be part of the problem
  - If approach to improving care is incorrect or problematic, twice as much won't do twice as well
    - Math:  $2 \times 0 = 0$ ;  $4 \times 0 = 0$ ;  $100 \times 0$  still  $= 0$



# Steps to Genuine Reform

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- Understand physical, functional, and psychosocial basis of care
- Identify key care processes
- Understand how to review information
- Understand how to identify cause and effect



# Steps to Genuine Reform

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- Adjust oversight of care so that it is consistent with underlying reality
- Give proper feedback
- Promote care practices that are consistent with basic principles
  - Do not promote practices that are inconsistent
- Join forces with others with similar insights
- Develop effective review and accountability



# Accomplishments to Date in Improving LTC

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- Better overall care
- Decrease in pressure ulcers
- Reduction in chronic pain
- Improvement in nutrition and hydration overall
- Improved patient and family satisfaction



# Persistent Concerns

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- Concerns persist about the quality of long-term care
- Why do these persist, despite longstanding improvement efforts?
  - Perhaps, because not enough of the right things being done consistently
  - Perhaps, because some or much of the advice is misleading or misguided



# Improvement and Reform

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- Reform and improvement efforts
  - Require a cohesive strategy and a meaningful plan
  - Must identify and address key issues and root causes
  - Must not promote erroneous, outmoded, or inadequate approaches to addressing complex problems
  - Must reinforce desired performance and practice
  - Must promote (not inhibit) appropriate approaches



# Biologically Sound Care

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What does it mean to give  
biologically sound care?



# Effective Care and the MDS

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- Identify a medical condition that
  - Is common
  - Is under-diagnosed, undertreated
  - Can trigger 15 or more of the 20 Care Area Triggers (CATs) in the RAI
  - Is potentially readily identifiable and treatable
  - If treated, can have profound effects on function, psychosocial well being, quality of life, and even return to the community
  - Is a prominent example of one cause → many consequences

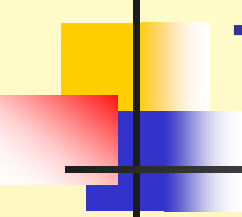


# Despite This

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- Hospitals often don't test for it
- Physicians often don't consider it
- Nursing home staff may not think of it
- Needs to be considered in the thinking about almost any trigger
- Only mentioned incidentally in CAAs
  - Delirium, ADLs, mood state, nutrition

# Hypothyroidism: Associated Triggers



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- Delirium
- Cognitive loss
- Visual function
- Communication
- ADL function
- Urinary incontinence
- Psychosocial well being
- Mood state
- Behavior symptoms
- Activities
- Nutritional status
- Dehydration
- Psychopharmacological medication use
- Pain
- Return to community



# Key Principles

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What constitutes biologically sound care?

# Biologically Sound and Unsound Care



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- Sound

- Care of person with [Condition A + Condition B + Condition C + Condition D + Condition E]

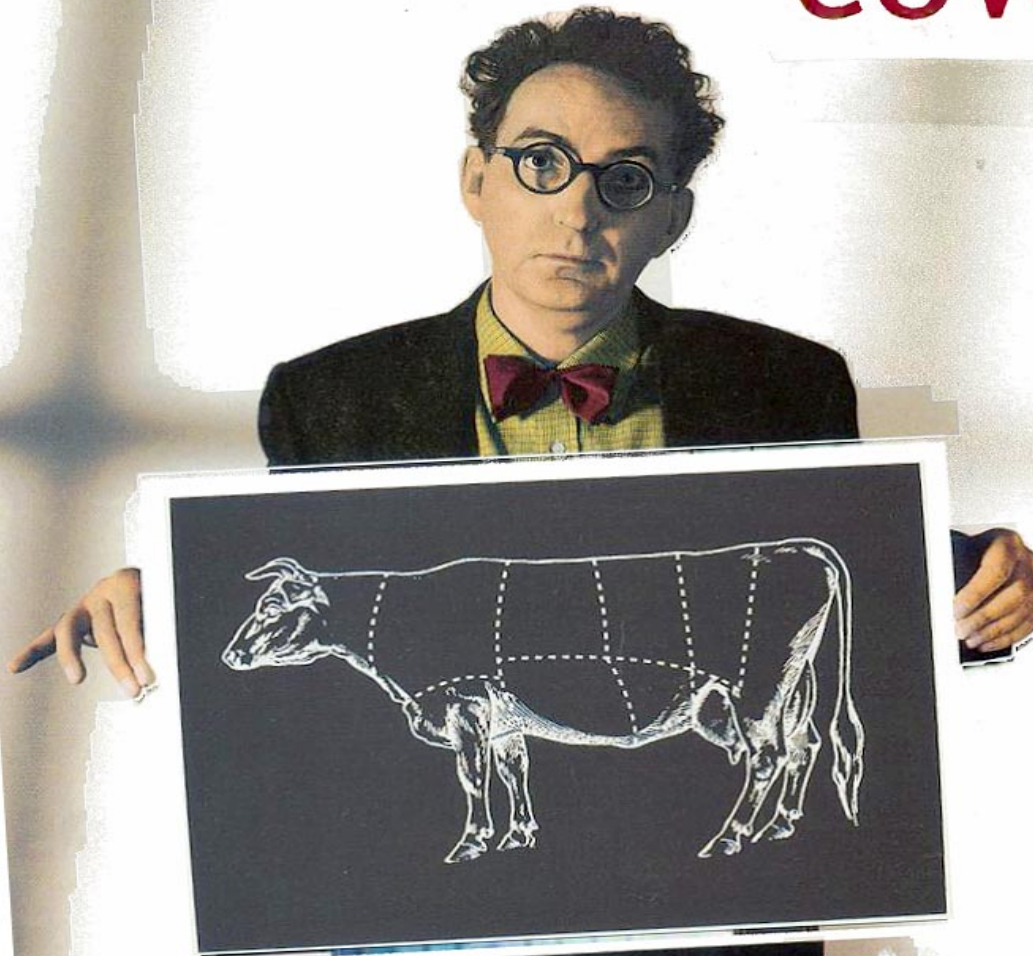
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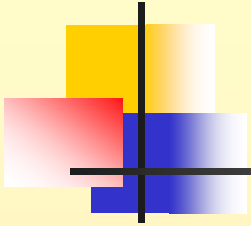
- Unsound

- [Care of Condition A] + [Care of Condition B] + [Care of Condition C] + [Care of Condition D] + [Care of Condition E]

This is not a

COW.







# Care in Context

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- Coordinated and integrated care of people with multiple issues
  - Consistent with biology because it
    - Takes each symptom, condition, risk, or problem in context
      - Including sequence of events
    - Identifies proper combinations of cause-specific and symptomatic interventions
    - Promotes care that optimizes physical, functional, and psychosocial homeostasis



# Care in Context

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- Fragmented or uncoordinated care
  - Biologically unsound because it
    - Approaches issues as distinct entities
    - Fails to identify root causes
    - Fails to address causes and consequences in proper context
    - May cause new or additional complications while trying to address issues in isolation



# Key Principles

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- Safe, effective, efficient, and person-centered care has an unmistakable biological foundation
  - Care must reflect that foundation
  - Meaningful health care improvement and reform must do likewise



# The Three Human Dimensions

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PSYCHOSOCIAL

FUNCTIONAL

PHYSICAL



# Key Principles

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- Every human being has 3 key dimensions: physical, functional, and psychosocial
  - Care must recognize links among physical, functional, and psychosocial dimensions
- Care must be consistent with human physiology, including homeostasis



# Biologically Sound Care

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- “Quality of life” and “quality of care” are inseparable in all settings
- Is based on linking each person’s physical, functional, and psychosocial causes and consequences



# Biologically Sound Care

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- Recognizes that interventions may be beneficial, inconsequential, or harmful
  - Depending on situation and underlying causes and consequences
- The essence of “person-centered care”

Name LL

Age 74 Doctor-

Conf. Date-

RELATIONSHIPS BETWEEN PROBLEMS, DISEASES, TREATMENT/CARE

**PROBLEMS**

Group 1-Overall health  
Potential for injury  
Infection/contagion  
Prolonged disease/disability  
Instability  
Impaired life support systems

**Group 2-Nutrition/metabolism**

Excess fluid volume  
Fluid volume deficit  
Bleeding  
Altered nutrition status  
Impaired skin integrity  
Altered oral mucous membranes  
Altered body temperature

**Group 3-Urinary/fecal function**

Urinary incontinence  
Other altered urinary elimination  
Constipation  
Diarrhea  
Bowel incontinence

**Group 4-Activity and exercise**

Activity intolerance  
Ineffective airway clearance  
Altered breathing pattern  
Impaired gas exchange  
Decreased cardiac output  
Altered health maintenance  
Impaired mobility  
Self-care deficit

**Group 5-Psychosocial concerns**

Disturbed self-concept  
Depression  
Dysfunctional grieving  
Altered family process  
Social Isolation/Leisure activity intolerance  
Impaired verbal communication  
Ineffective individual coping  
Family coping: potential growth  
Spiritual distress

**DIAGNOSES**

Urinary tract infection  
Pneumonia  
Septicemia  
Acute respiratory failure  
staph endocarditis  
L embolus, L big toe  
Dehydration  
L Hypokalemia  
Delirium  
Gastritis  
L GI bleeding  
Atrial fibrillation/SVT  
Congestive heart failure  
? brain abscess  
Antibiotic-induced colitis  
L Diarrhea  
? Hypernephroma, (R) kidney

**TREATMENT/CARE**

Zocephin  
Ritampin  
KCl  
? Risperdal  
? praxid  
? (Carafate)  
? (Pepcid)  
? Amiodarone  
Lasix  
? Vasotec  
? Inderal  
Fkgyl  
Cardura  
Ectrin  
Vit C  
Multivit.

Mini-mental score

24

Ativan



# Key Principles

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- Care must recognize that symptoms and risk factors have causes
- Care must recognize that symptoms and causes exist in various relationships
  - Defining those links is crucial to providing safe, effective, and patient-centered care



# Physiology

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- Definition: “the processes and functions of an organism”
  - <http://www.google.com/search?hl=en&source=hp&q=define%3Aphysiology&aq=f&oq=&aqi=l1>
- Adequate physiological function is a prerequisite to satisfactory personal or psychosocial function
  - Not a guarantee, though



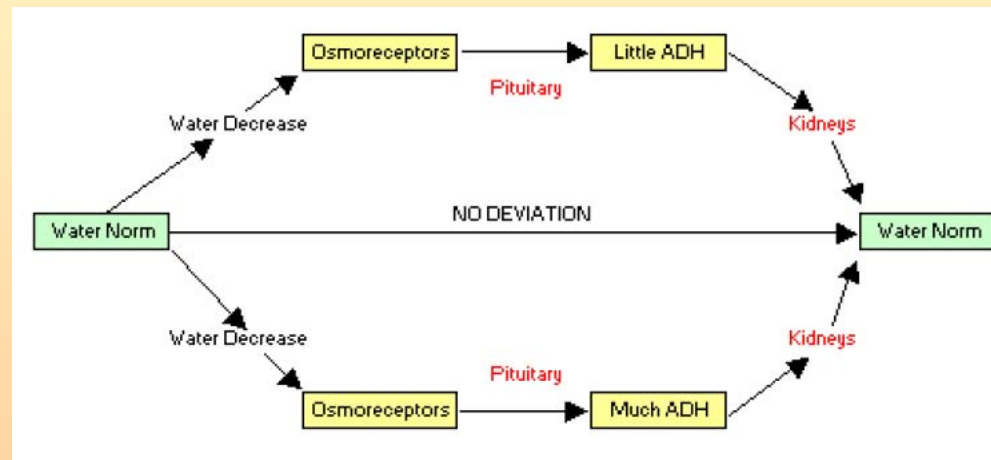
# Homeostasis

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- A key biological principle
  - An organism maintains relative stability through constant internal adjustment
- Adequately functioning organ systems adjust to compensate for stresses
  - Including imbalances and impairments

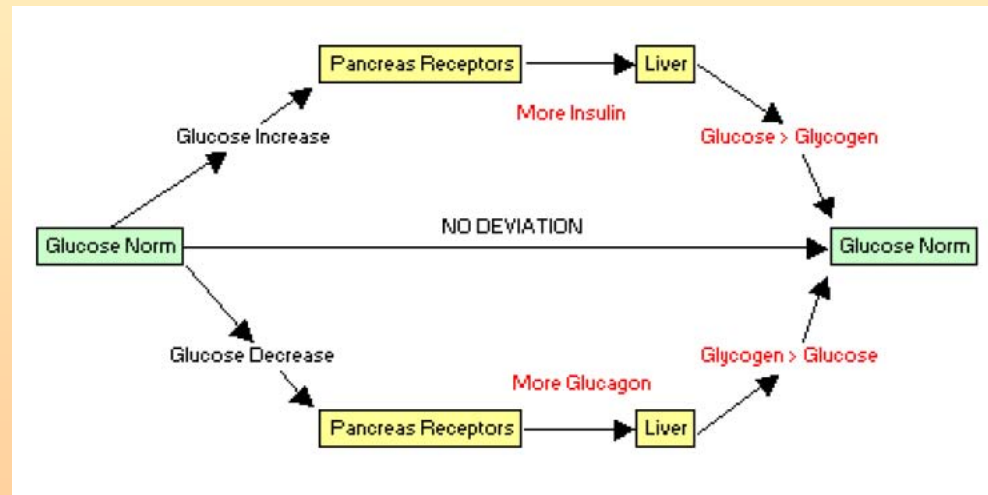
# Homeostasis: Water Balance

- Maintaining water balance



# Homeostasis: Blood Sugar

- Blood sugar regulation





# Homeostasis

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- Disease and significant organ failure
  - Can cause imbalances and impair physiological reserve capacity
- If one or several organ systems fail and cannot adjust adequately
  - Other organ systems may adjust their activity to try to compensate
  - Example: kidney and endocrine function changes to try to compensate for heart failure



# Personal and Psychological Homeostasis

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- Similar to physiological homeostasis
- Individuals strive for psychological balance and adequate function
  - To thrive in personal and social setting
- Personal and psychological homeostasis require adequate physical homeostasis
  - Example: function and mood may decline when major medical illness causes physical instability

# Illnesses, Impairments, and Disabilities



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- Important to
  - Identify causes of impairments, to the extent possible
  - Determine which causes can be addressed and to what extent
  - Identify impairments causing disability
  - Minimize disability by
    - Addressing impairments
    - Addressing underlying causes

# Health, Illness, and Impairment



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- Health can be defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” - World Health Organization (WHO)
  - <http://www.who.int/about/definition/en/print.html>



# Health, Illness, and Impairment

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- Health care and health
  - Alone, health care unlikely to produce complete well-being (i.e., health)
    - However, it can affect well-being profoundly, for better or worse



# Biologically Sound Care

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- Consistent with well-defined relationships among illness, impairment, and disabilities and handicaps
- Reflects physiological reality, for example
  - Actions of all organ systems are integrated
  - A symptom or risks may have multiple causes or multiple symptoms may have a common cause

# Biologically Sound Care: History and Context



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- What are the likely differences in cause, approach, and context if someone
  - Gets delirium and then gets anorexia
  - Gets anorexia and then gets delirium
  - Has a significant condition change with change in mental function and anorexia at the same time

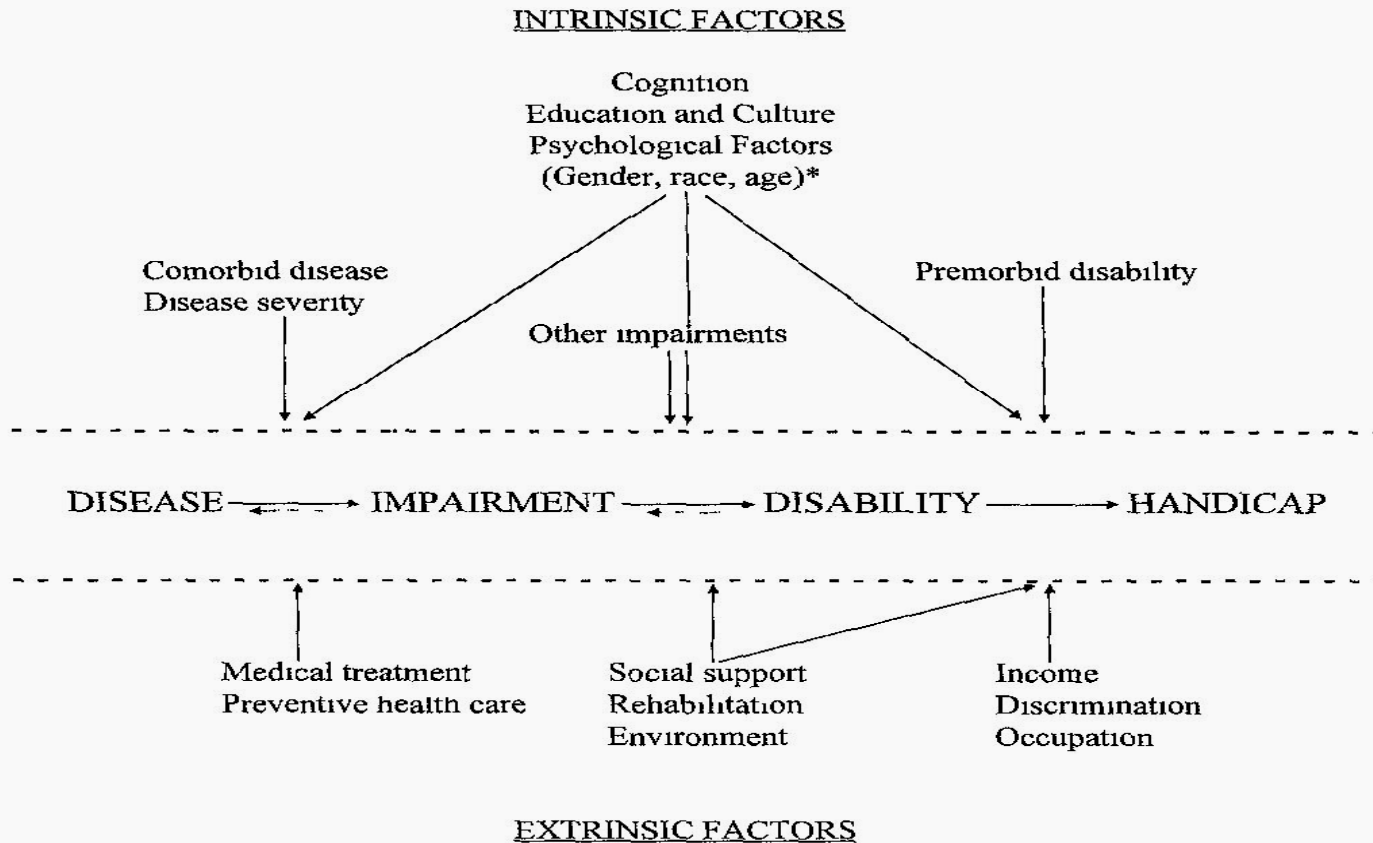


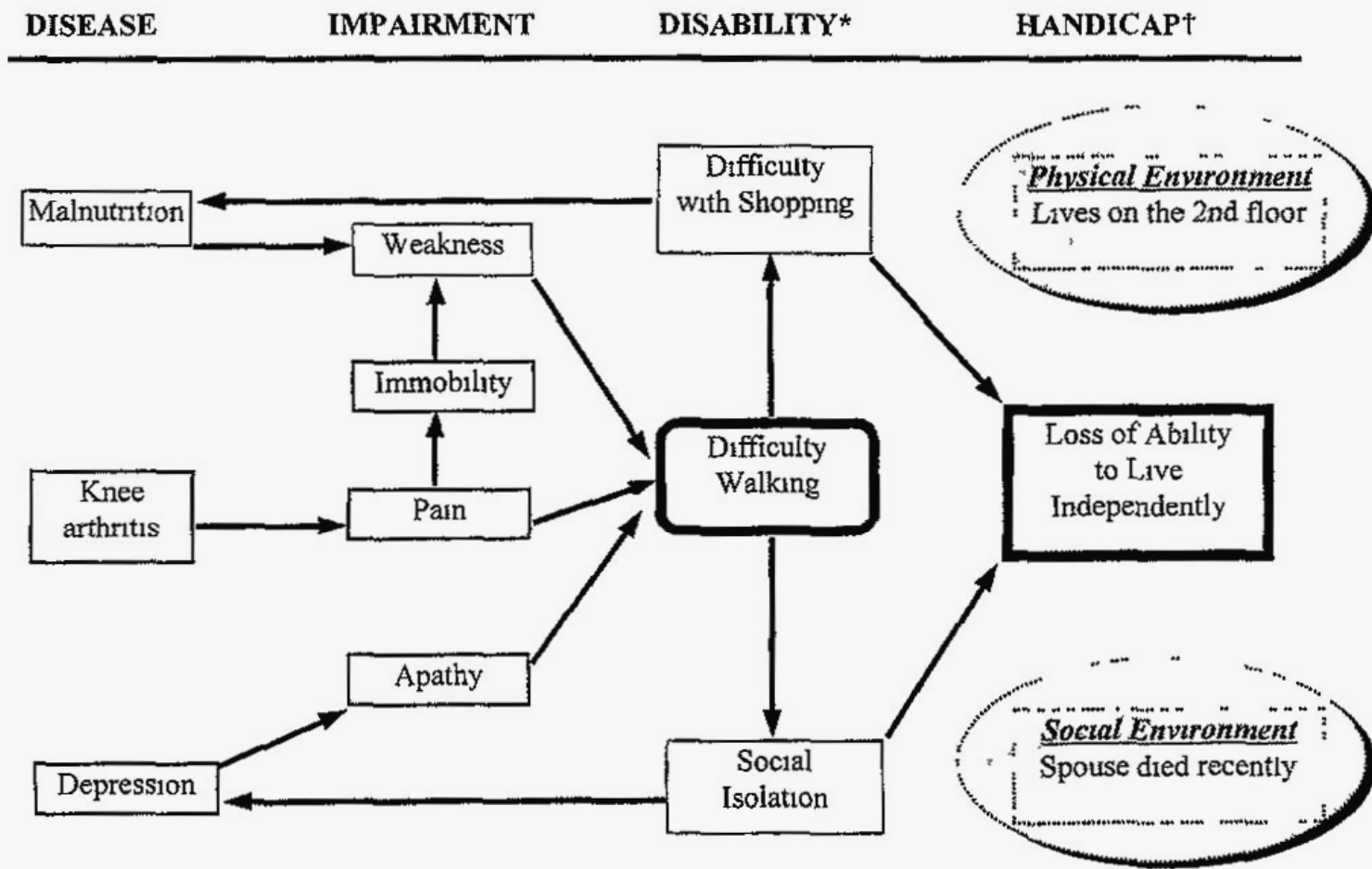
# Causes and Consequences

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- All consequences (e.g., impairments, symptoms, complications) have causes
- Causes and consequences occur in four major patterns and relationships
- Clarify links among causes and consequences
  - Basis for providing care in any setting

# Causes and Consequences

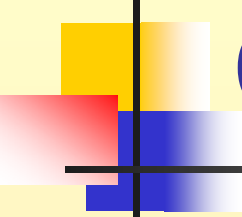




**INTERVENTIONS**

- |                                |                        |                           |                               |
|--------------------------------|------------------------|---------------------------|-------------------------------|
| <i>Nutritional supplements</i> | <i>Knee exercise</i>   | <i>Cane</i>               | <i>Move to 1st floor</i>      |
| <i>Antidepressants</i>         | <i>Pain Medication</i> | <i>Meals on Wheels</i>    | <i>Church volunteers</i>      |
| <i>(Knee replacement) ±</i>    |                        | <i>Handicap transport</i> | <i>Bereavement counseling</i> |

# Linking Causes and Consequences



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- Four essential steps
  - 1) Characterize the disabilities
  - 2) Identify causal impairments
  - 3) Determine specific diseases underlying identified causal impairments
  - 4) Discover any contributing factors
    - Hoenig H, Nusbaum N, Brummel-Smith K. Geriatric rehabilitation: State of the Art. J Am Geriatr Soc 45:1371-1381, 1997



# Causes and Consequences

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Complications →	One	Multiple
Causes		
One	+ / +	+ / +++++
Multiple	+++++ / +	+++++ / +++++



# Biology Influences All Care

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What characteristics of the long-term and postacute care population influence the care?



# Long-term Care Population: Key Characteristics

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- All have physical, functional, and psychosocial dimensions
- All have underlying biological function
  - Including organ systems and supporting biochemical activities
- All need to try to optimize physical and personal homeostasis
  - In the context of underlying illnesses and impairments



# Long-term Care Population: Key Characteristics

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- All have some identifiable relationships between causes and consequences
- Most have diseases and impairments (or risk factors for them) that challenge capacity to maintain physical stability
- A few common problems and conditions occur repeatedly
  - For example, the Care Area Triggers



# Long-term Care Population: Key Characteristics

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- Many symptoms reflect combined effects
  - Acute illnesses, chronic conditions, side effects or complications from medications
- Relatively few have conditions in the one-to-one category
  - Single condition with single consequence
  - More often, multiple-to-multiple or one-to-multiple categories



# Health Care Role

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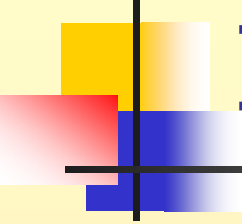
What is the role of health care in providing biologically sound care?



# Implications for Care Provision

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- Key goal of all health care
  - Effectively integrate interventions and services related to physical, functional, and psychosocial dimensions
- Key goal of medical care
  - Help individuals attain and preserve enough physiological function to enable the greatest possible personal and psychosocial function
    - Within limits of what's reversible / preventable<sup>53</sup>



# Implications for Care Provision

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- Safe, effective, and person-centered is most likely to occur when
  - Consistent with—and not in conflict with—these enduring and universal principles
- Even rational and orderly health care does not always bring desired results



# Reform and Improvement

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How and why do these principles affect efforts to improve long-term care?



# Reform and Improvement

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- Health care influences, and is influenced by, all other social institutions
- It is possible to give safe, effective, and person-centered care anywhere
- We can assess effectiveness and quality of long-term care and activities trying to improve and “reform” that care



# Efforts to Oversee and Improve Care

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- Meaningful efforts to improve and reform long-term care must
  - 1) be consistent with, or at least not contradict, aforementioned key principles
  - 2) promote, or at least not undermine, adherence to those principles
  - 3) promote geriatrics principles and practices
    - Including related medical, functional, and psychosocial approaches



# Essential Support for Reform

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- Other social institutions and public policy must
  - Reflect and respect underlying biology
  - Understand what they are alleging to try to improve and reform
- Efforts to advance “person-centered” care must promote more than just psychosocial aspects of quality of life



# Essential Support for Reform

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- Less helpful efforts
  - Promote interventions without adequate context
  - Focus on fragments of the care delivery process (such as care planning or treatment)
  - Promote management of symptoms and problems (e.g., pain and anorexia) as separate and distinct entities