

***Implementing Geriatric Research
In Practice: How Can We
Improve Routine Care ?***

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Questions

- What is geriatric care like in the US?
- What are the challenges to high quality geriatric care?
- How can research on geriatrics be implemented to improve quality?

Mary, 85 year old widow

- Poor
- Isolated
- Diabetes, hypertension, venous leg ulcer
- Deteriorating nutrition

What Happens to Mary?

- She is receiving care
 - Primary care MD monthly
 - Home care 2 x/wk for ulcer
- Neighbor smells gas odor on landing, Mary not interested
- What happens next in the USA?

Most Likely....

- Neighbor calls 911 (emergency ambulance support)
- Ambulance brings her to hospital
- Hospital ER assesses
 - If no acute medical issue (e.g., not septic), sends home
 - Her primary care MD will not find out
 - Nutrition etc. will not be addressed
 - Daughter not called

What if Mary is depressed...

- Primary care clinician will have to detect it
- Treatment 50/50 or less
 - Appropriate treatment rates for all depressed 50%, about the same for elderly as younger
- She is likely not to adhere & no one will check, no care manager

What if Mary Broke Her Hip

- Admitted to hospital, hip repaired
 - Venous ulcer may continue to worsen
 - Diet may not be addressed
- Discharged to acute rehab after 5-10 days if good rehab potential
- Discharged to NH rehab if rehab tolerance or progression in hospital is slow
 - NH rehab uneven

What might happen next...

- Discharged to home from acute rehab
 - Under care of orthopedics
- Daughter calls orthopedist 1 wk later; Mary “isn’t feeling right”
- Ortho asks if hip is bothering (“no”) and tells her to come to clinic in a week
- Two days later Mary becomes comatose and is admitted with a blood sugar of 900
 - Diabetes meds not adjusted
 - No one called the primary care

What Happens if Mary is Demented?

- Treated for acute problems
 - MRI scan
- Discharged to a NH or Alzheimer's unit
- If able to move to daughter, may live at home with home health care
 - Alzheimer's Association and others not coordinated
 - Prevention/education not carried out

Overall Problems With Care

- Inadequate assessment, education and care management
 - If primary care clinician is exceptionally conscientious, or she happens upon a geriatrician, whether she is wealthy or poor she will probably be cared for
 - If she is poor, she is less likely to have a regular primary care clinician
 - If no primary or geriatric care, she is more likely to end up disabled or dead



"Didn't you read the fine print? Your policy covers everything except what happens to you."

US Geriatric Care “System”

- Not a purpose-built system
- Current trends
 - Decreasing use of hospitals
 - Changing role of nursing homes
 - Increasing use of outpatient care
 - Increasing use of home care, assisted living

Overall Picture

- 14% of gross national product spent on health
- Life expectancy is 71.8 for males, 78.9 for females (23rd among nations)
 - Survival over age 80 is first (Manton & Vaupel, 1995) or 8th (US Dept of Commerc, 1996) among nations
- By 2050, 40% increase in chronically ill

Big Picture Challenge

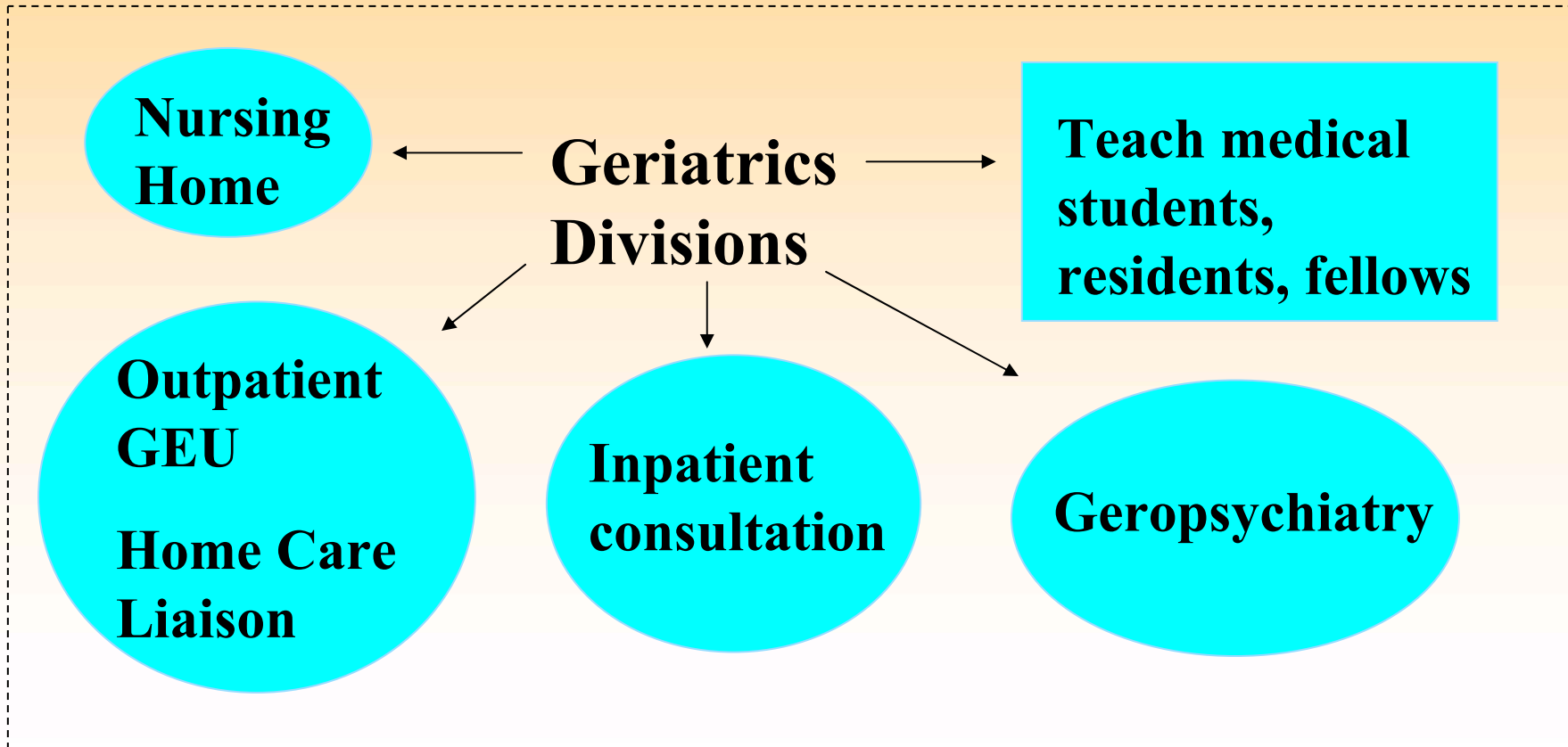
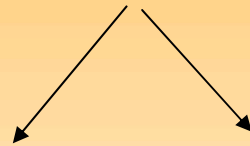
- Increasing demands on public financing as expenditures for elderly grow
 - Medicare (public insurance for the elderly)
 - Medicaid (public insurance for poor) covers nursing homes
- Pivotal role of geriatrics in national strategic planning only partly recognized

Organization of Geriatrics and Geriatric Services

Academic Institutions

Departments of
Medicine

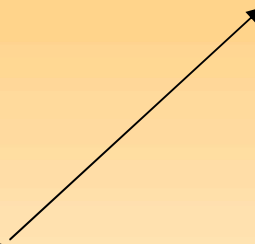
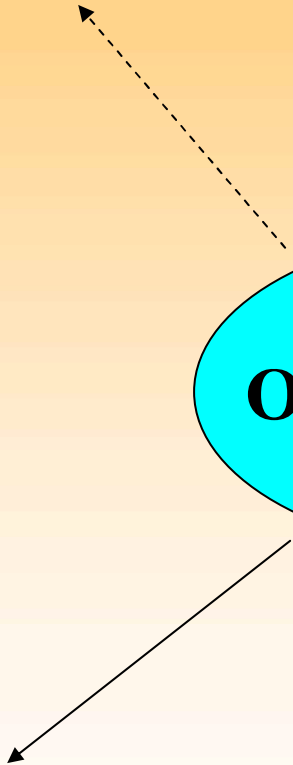
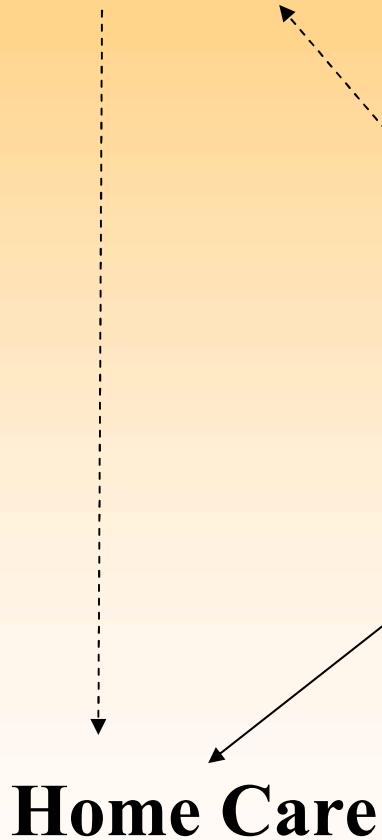
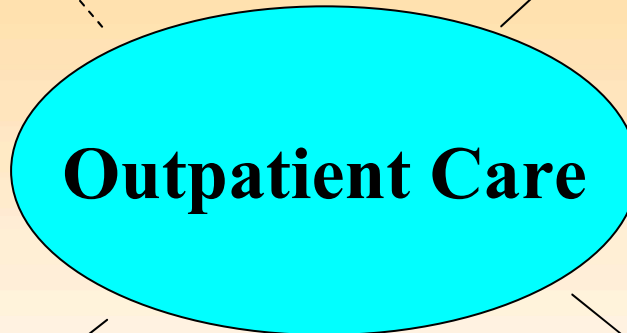
Departments of
Family Medicine



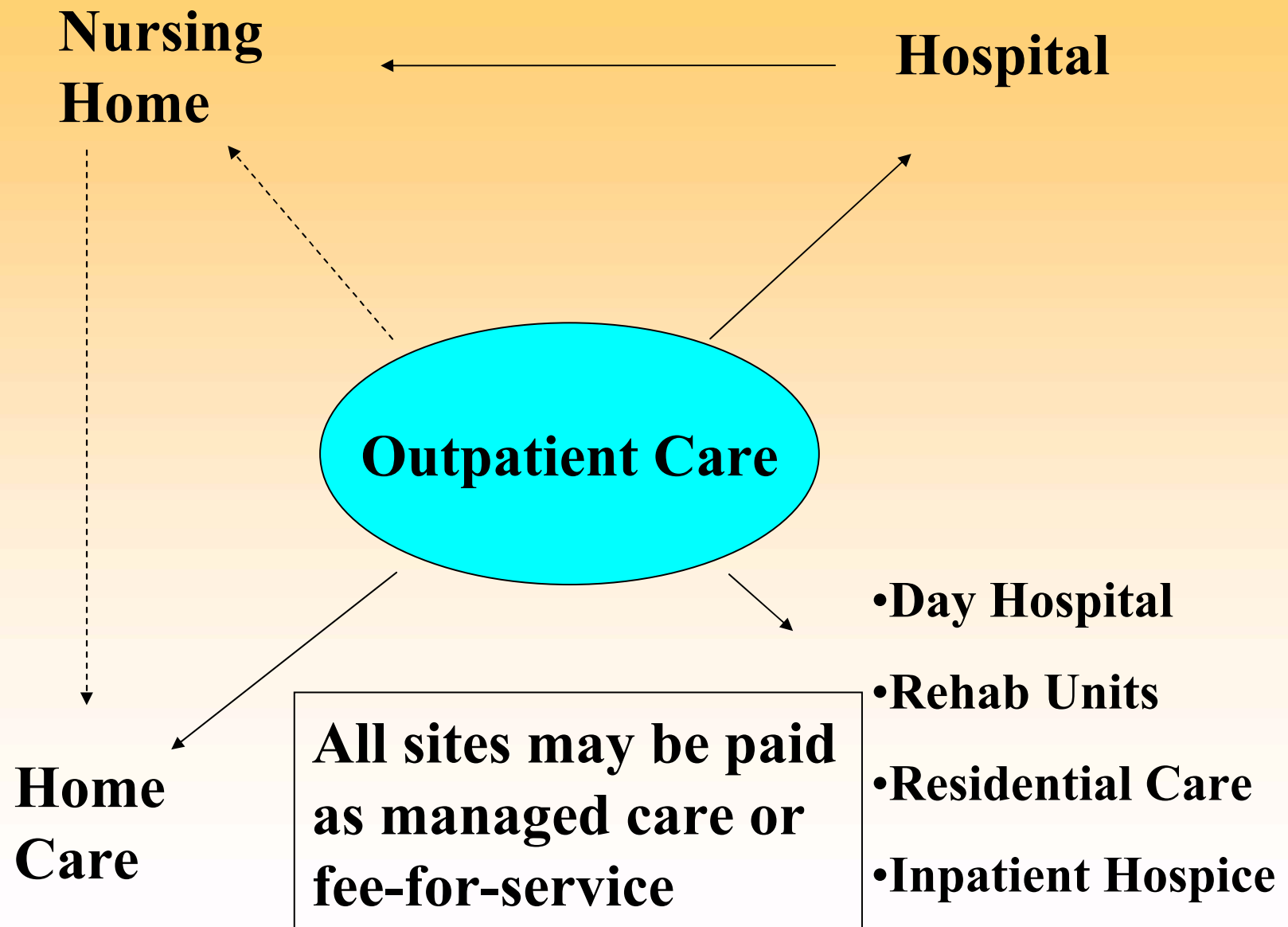
Usual Care

Nursing Home

Hospital



- **Day Hospital**
- **Rehab Units**
- **Residential Care**
- **Inpatient Hospice**



Staff Model Managed Care

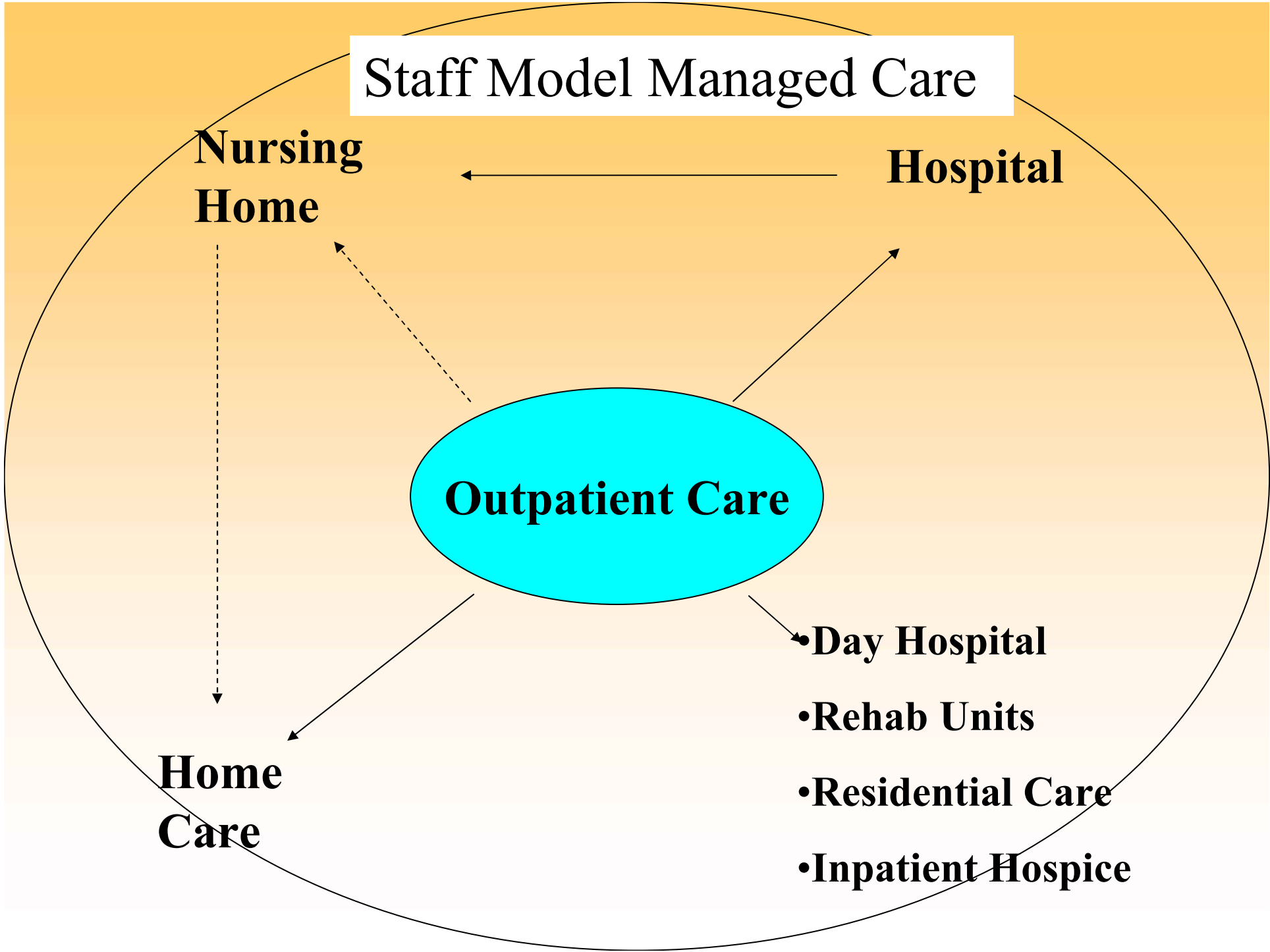
Nursing Home

Hospital

Outpatient Care

Home Care

- **Day Hospital**
- **Rehab Units**
- **Residential Care**
- **Inpatient Hospice**



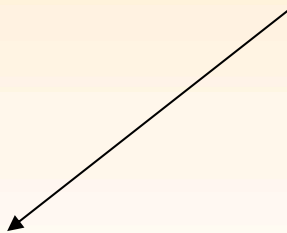
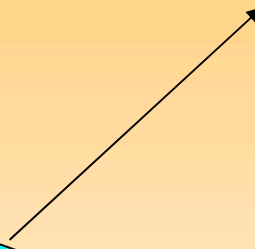
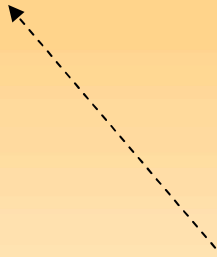
**Nursing
Home**

Hospital

**Network Model Managed Care
Outpatient Care**

**Home
Care**

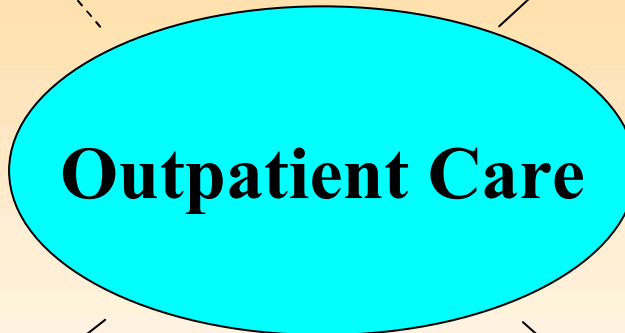
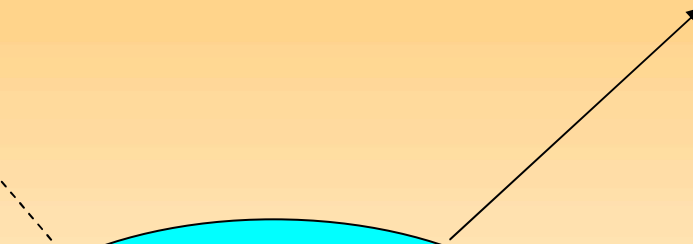
- **Day Hospital**
- **Rehab Units**
- **Residential Care**
- **Inpatient Hospice**



Nursing Home

- **About 50% certified in Geriatrics**

Hospital



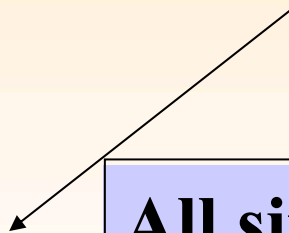
- **Day Hospital**

- **Rehab Units**

- **Residential Care**

- **Inpatient Hospice**

Home Care



All sites may include clinicians with geriatric certification

Challenge for Geriatrics

- Role of geriatricians within the healthcare system not organized
- Too few to meet needs of aging population
 - How best to collaborate with primary care

Geriatric Hospital Care

- Increasing predominance of elderly
 - Older patients account for 37% of discharges
 - Length of stay average 7.5 days
- Geriatric wards uncommon
 - 34% of 6,591 US hospitals report a GEM or ACE unit
 - Mixed acute and step-down type

Geriatric Hospital Care (cont)

- Geriatric inpatient consultation teams
 - Include geriatrician, geri social work, dietitian, psychiatry
 - Statistics unavailable
- New trend of increasing hospitalist physicians (usually Gen Int Med)
 - Level of geriatric training, impact on geriatric care not yet available

Geriatric Quality Issues in Hospitals

- Quality of end-of-life care
 - Pain
 - Advanced directives
 - Family involvement
- Coordination with post-hospital care
- Quality of readiness for discharge assessments
- Management of “geriatric” conditions improved, but not perfect

Geriatric Post Acute Care

- Outpatient MD responsible
- Extensive development of home care
 - Durable medical equipment
 - Visiting nurses, physical and occupational therapists
- Nursing homes increasingly used as step-down care, rehabilitation
- Acute Rehabilitation Units
 - Stand-alone
 - Require “rehabilitation potential”

Geriatric Nursing Home Care

- Increasing intensity of care
 - Admission rates up e.g.,
 - Admissions per 100 beds were 96 in 1995 versus 81 in 1985
 - Employees were 53 per 100 beds in 1995 versus 49 in 1985 and 46 in 1977
 - End-of-life care
 - 42% of first admissions result in death

Nursing Home Length of Stay

- Average length of stay for all discharges was 290 days (NCHS 2000)
 - Overall LOS for current residents = 870 days
 - Difference reflects short stay residents admitted for post-acute care
- 28.3% discharges are to hospital
- 27.1% of discharges are to death

Nursing Home Beds

- Number of NH beds per person >65 **decreased** from 60/1000 in 1985 to 53/1000 in 1995
- NH population declined 2-3% between 1990 and 1995
- Geriatric population increased 18% between 1985-1995

Nursing Home Size, Ownership

- 1996: 16,840 NH with 1.76 million beds
- Nursing home size up
 - Av 106 beds in 1995 vs 85 beds in 1985
 - Smaller, proprietary single-facility disappearing
- Chains owned and operated by for-profit corporations predominate
- Non-profit and government NH's maintaining stable share

Nursing Home Payors

- Public funding through Medicare or Medicaid serves as primary payment source for
 - 67.9% of admissions,
 - 71.1% of ongoing care

Nursing Home Population*

- Mean age 84.6 and rising
 - 56% age 85+ in 1995 versus 49% in 1987
 - 90% over age 65
- More disabled: 83% need assistance with 3 or more ADL (increase of 15% since 1987)

***MEPS = Medical Expenditure Panel Survey, 1996**

Geriatric Home Care

- 7 million Americans receive care in their homes each year at a cost of > 36 billion dollars
- Medicaid waivers (1981) and Olmstead decision (1999) encouraged “most integrated setting appropriate to needs of disability”

Home Health Participation

- 1992 – 1994, people served by home health agencies rose 52% (Dey, 1996)
 - from 1,232,200 to 1,889,400
- Average length of use 324 days

Geriatric Home Care Providers

- Home health agencies
 - Visiting nurse associations
 - Home Hospice
 - Other
- MDs rarely home visit
- Private duty nurses
- Informal

Challenges

- Poor coordination of services
- Unclear eligibility

Residential Geriatric Care

- Assisted living
 - Congregate housing
 - Provides assistance and monitoring, e.g., medication assistance
 - Increasing use
- Residential board-and-care
 - Congregate housing, little assistance beyond meals

Outpatient Geriatric Care

- Primary care providers predominant
 - General internal medicine, family medicine MDs
 - Nurse practitioners, clinical nurse specialists
- Geriatricians esp. frail elderly

Challenges

- Geriatric assessment and management requires subsidization
- Managing necessary polypharmacy and multiple services
- Care management not supported
 - Patchwork of public and private agencies that do not communicate
 - Little time during clinician visits to coordinate care

Improving Quality of Care

- Geriatric patients have access to necessary care, but easier to access to technology than to time-consuming assessment, education, and coordination
- Primary care outside of geriatric specialists does not follow the chronic illness care model

**Community
Resources and
Policies**

Health System

Organization of Health Care

**Self-
management
Support**

**Decision
Support**

**Clinical
Information
Systems
Delivery System
Design**

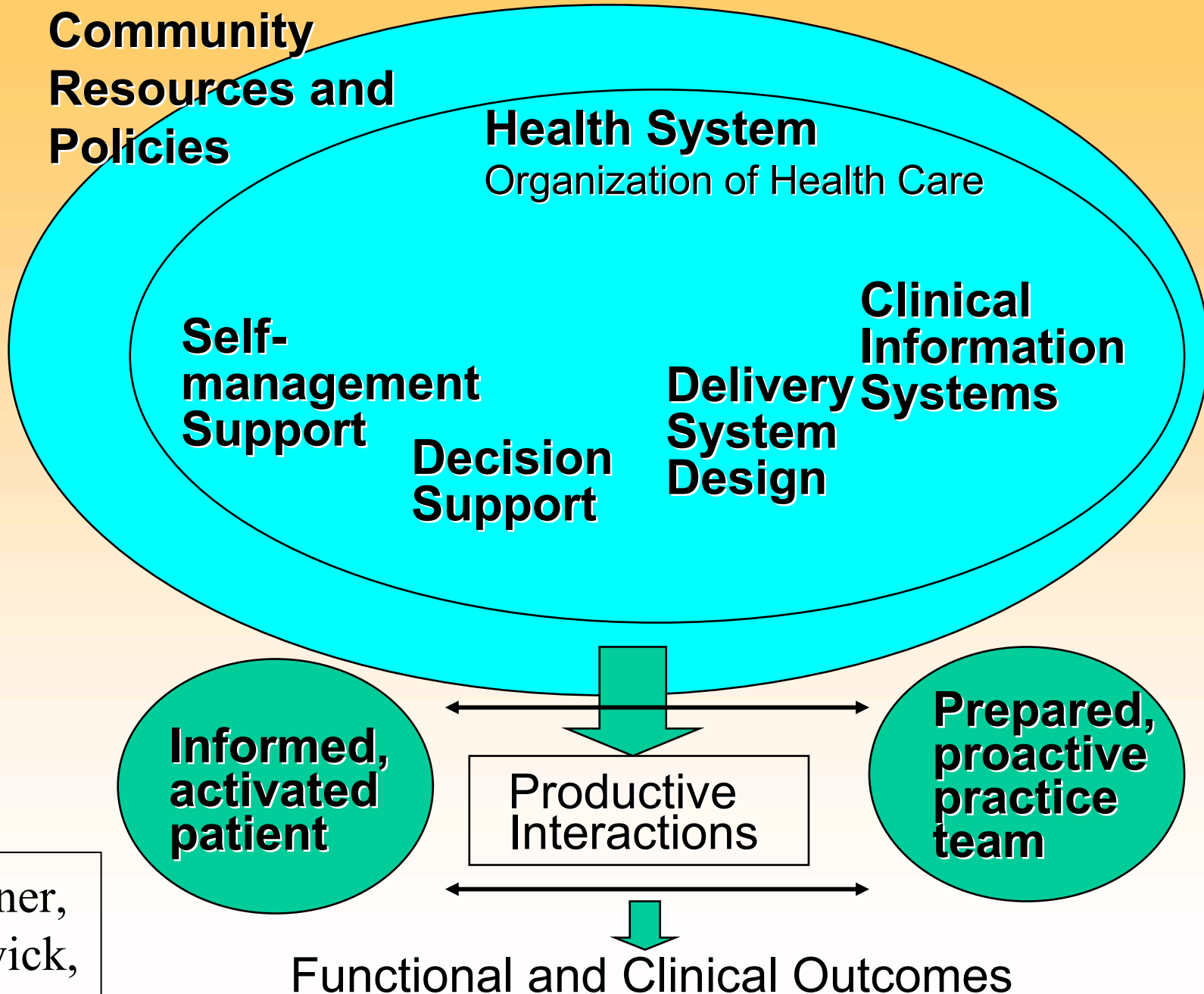
**Informed,
activated
patient**

Productive
Interactions

**Prepared,
proactive
practice
team**

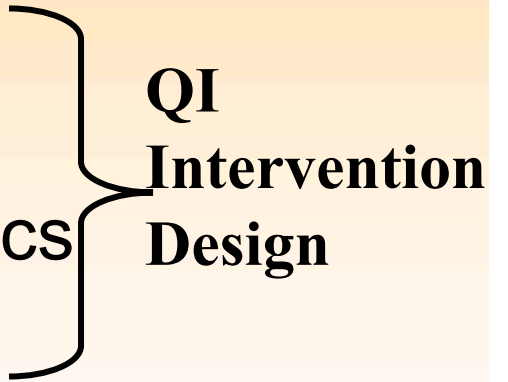
Wagner,
Berwick,
IHI

Functional and Clinical Outcomes



***How Can We Achieve Proactive,
Evidence-Based Geriatric Care for
Primary Care Populations?***

Inventory of Prior Research: VA QUERI Model

- Identify target problems
 - Define best practices (guidelines)
 - Assess care variations
 - Assess determinants of care
 - Develop intervention models
 - Evaluate effectiveness
 - Identify successful model characteristics
 - Develop dissemination models
 - Evaluate dissemination
 - Implement as routine policies and procedures
 - Evaluate national performance
- 
- QI
Intervention
Design**

Identify Target Problems and Guidelines

Guidelines available for, e.g.:

- Incontinence
- Pain
- Pressure ulcers
- Alzheimer's, Dementia
- Depression
- (See AHRQ Guideline Clearinghouse)

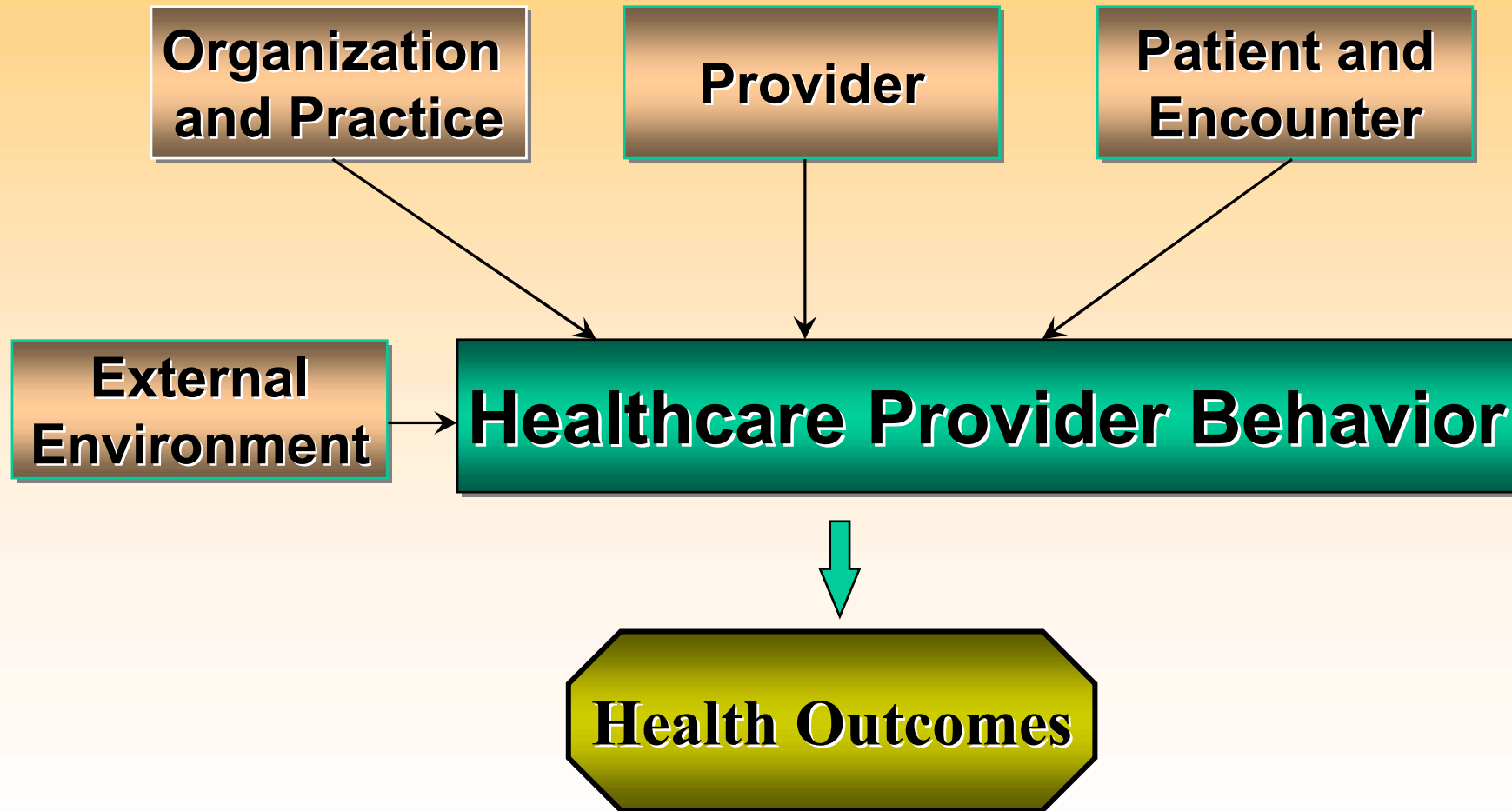


"Are these just guidelines, or are they actual new policies?"

Assess Geriatric Care Variations and Determinants

- Good work on geriatric indicators (e.g. ACOVE)
- Not much work on care variations and determinants for “geriatric” complaints
 - E.g., are there variations in care for pain based on geography, type of organization, type of setting, clinician characteristics, knowledge and attitudes, patient characteristics, knowledge, and attitudes?

Determinants of Provider Behavior



VA/RAND/UCLA Center for the Study of Healthcare Provider Behavior
Rubenstein, Medical Care, 2000

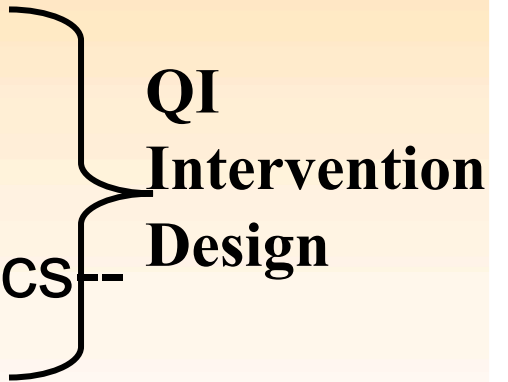
Develop Geriatric Intervention Models, Evaluate Effectiveness

- Strong geriatric intervention model development
- Literature on geriatric assessment
 - High quality, randomized trials
- But, an implementation gap
 - Randomized mostly at the patient level
 - Interventions carried out with heavy researcher participation

Identify Successful Geriatric Model Characteristics

- No consensus process on model characteristics
 - Conditions to address (e.g. incontinence, pain)
 - Methods for addressing them (e.g. home visits, assessment team)
- Summaries of information on local characteristics that affect implementation
 - E.g., urban, rural, small versus large clinic size

Inventory of Prior Geriatric Research: QUERI Model

- Identify target problems ✓
 - Define best practices (guidelines) ✓
 - Assess care variations --
 - Assess determinants of care --
 - Develop intervention models ✓
 - Evaluate effectiveness ✓
 - Identify successful model characteristics --
 - Develop dissemination models--
 - Evaluate dissemination--
 - Implement as routine policies and procedures
 - Evaluate performance measures
- 
- QI
Intervention
Design**

Add Methods from Other Successful Chronic Illness Care

- Collaborative care
 - Geriatrician support for assessment, care management in primary care
- Computer medical records
 - Reduce pharmacy errors, improve information transfer across settings, improve prevention
 - VA system example
 - At-visit reminders, feedback for geriatrics

Implement as Routine Policy and Assess Performance

- Initiate national performance measurement and feedback system
 - Achieving performance goals may require policy changes



Efficacy

**Routine
Care**

Effectiveness

**Quality
Improvement**

“They always say time changes things, but you actually have to change them yourself.”

Andy Warhol, *The
Philosophy of Andy Warhol*

Nursing Home Overall Role

- 27-29% of persons over age 25 spend some time in nursing home prior to death.
 - (1985) National Nursing Home survey
 - (1986) National Mortality Followback survey

Nursing Home Population

- 1,465,000 residents age 65+ (NCHS*,2000)
 - Vs 1,590,763 1996 (Dept Commerce)
- 5.1% of the 1990 elderly population resided in nursing homes
- 88.4 % white (NCHS 2000),88% (1995, Strahan)
- 74.6% female (NCHS 2000), 72% (1995, Strahan)

***NCHS = National Center for Health Statistics**