Innovative Care Management Implementation of the Wagner Model Upside Down or From the Bottom Up

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The Disease Management Colloquium
Jefferson Medical College
Philadelphia, PA
June 27-30, 2004

Learner Objectives

- Be familiar with Wagner's Model for Chronic Illness Care
- Understand and list barriers for effective chronic illness care in current health care delivery system
- Discuss innovative care management models and methods that can be used to effect positive change within and across health care system/continuum to improve the quality of chronic illness care.

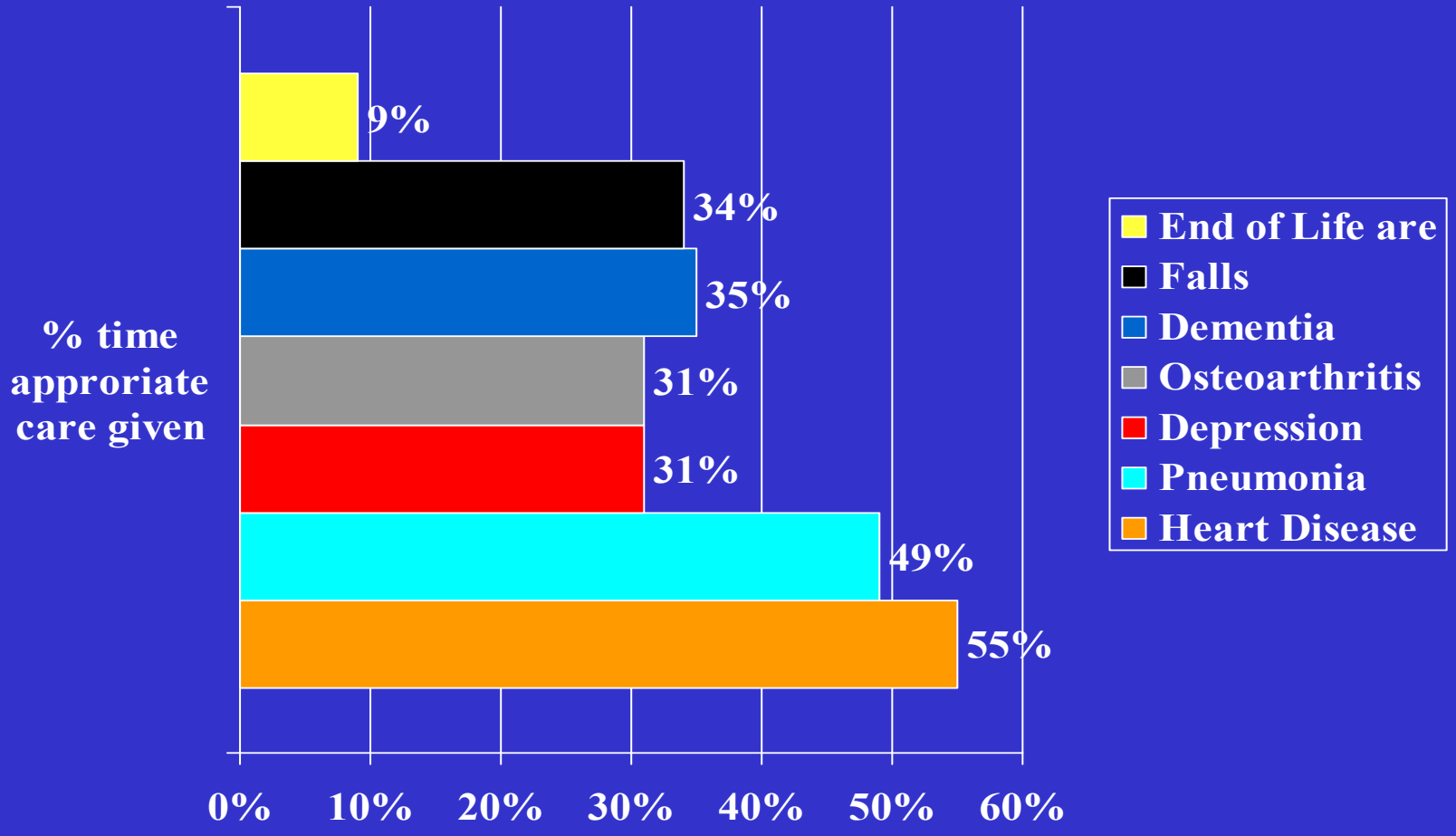
Background

- Disease Management (disease centric)
- Care Management/Coordination (multiple domains and patient centered)
- "Geriatric Medicine: It's More Than Caring for Old People"
  - **Thomas Gill, MD, American Journal of Medicine, 2002 July; 113:85-90.**

Chronic Care in America: A Challenge for 21st Century

- One in six Americans has a chronic condition that inhibits daily life
- 80% of hospital days (69% of admissions)
  - ✓83% of prescriptions
  - ✓66% of physician visits
  - ✓56% of ER visits

Health System Fails Seniors

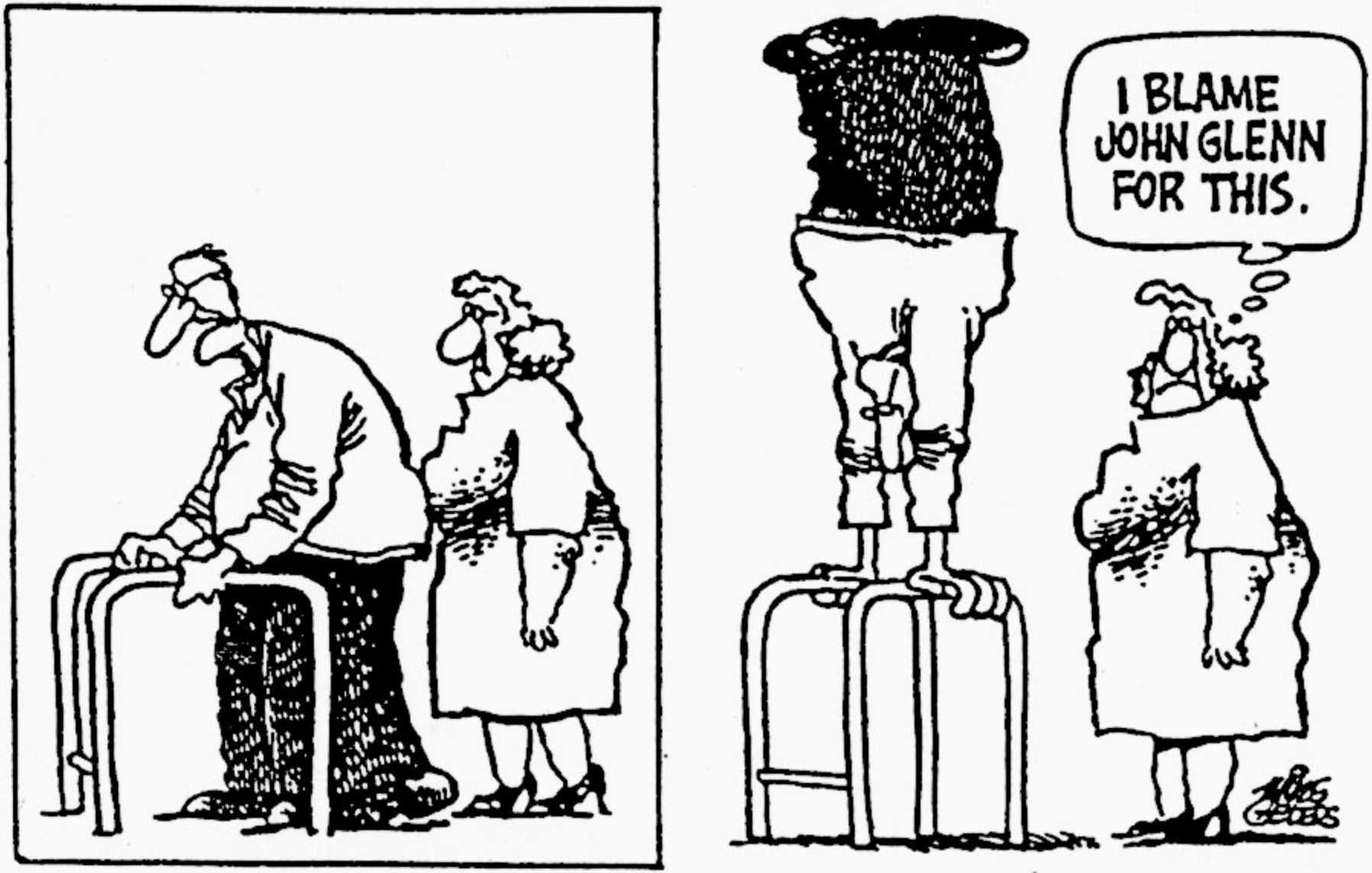


Wenger NS et al. Annals of Internal Medicine 2003 Nov 4;139(9):740-7

Geriatric Medicine

Geriatric Medicine

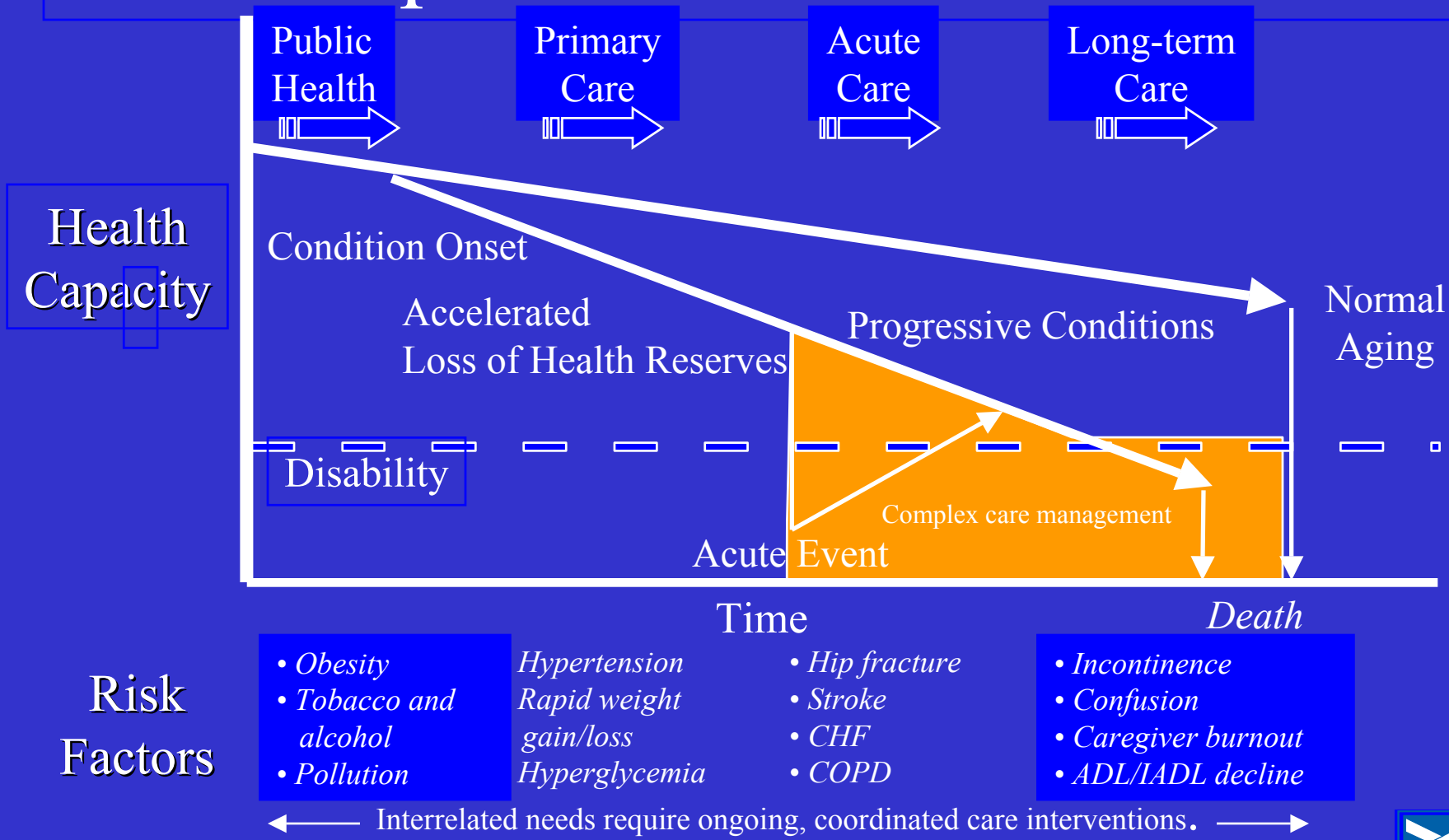
- Managing Multiple Chronic Conditions
- Care vs Cure
- "Preeminence of Function"
  - US Health System Goal
  - Health People 2010
  - AHRQ
  - "A sixth vital sign"
- Comprehensive Geriatric Assessment (CGA) and Team approach
- Provision of Coordinated Care Across Multiple Sites



Geriatric Medicine for Chronic Illness Care : An Evidenced Based Approach

- Outpatient CGA with collaborative management with PCP.
  - **Leveille SG et al. JAGS. 1998;46:1191-1198, Boult C et al. JAGS. 1998;46(3): 296-302. Stuck AE et al. Lancet. 1993; 342:1032-1036.**
- Hospital.
  - **Cohen H et al. NEJM 2002;346:905-912; Landefeld S et al. NEJM. 1995; 332:1338-1344. Inouye SK et al. NEJM. 1999;340:669-676; Counsell S et al. JAGS. 2000;48:1572-1581.**
- Transitional Care.
  - **Naylor M et. Al. JAMA. 1999; 281: 613-620. Rich M et al. NEJM. 1995;333:1190-1195; Naylor M et al. JAGS. 2004; 52: 675-684.**
- Post Acute SNF and Rehab.
  - **Rubenstein LZ et al. NEJM. 1984;311(26): 1664-1670; vonSternberg T et al. JAGS 1997;45:87-91; Kramer AM et al. JAMA. 1997; 277:396-404.**

The Nature of Chronic Conditions Requires a New Mind-set



Changing Culture

"If you are going to change something you've got to live on vision, before you live on reality. You have to be so inspired by the vision, that you keep telling everybody until it gets in them, and they start living it with you"

Father President Michael Scanlan,
Franciscan University of Steubenville

Improving Care of Patients with Chronic Illness: The Wagner Model

- Chronic Care takes place in 3 galaxies:
  - **Community**
  - **Health Care System and Payment Structure**
  - **Provider Organization; clinic, IDS, loose network of providers**
- Six Essential Elements
  - **Community Resources and Policies**
  - **Healthcare organization**
  - **Self-Management Support**
  - **Delivery System Design**
  - **Decision Support**
  - **Clinical Information Systems**

Wagner's Chronic Care Model

Wagner et al. 1999. "Managed Care Quarterly 7(3):56-66

Akron City Hospital

Cuyahoga Falls General

SummaCare Inc.

St. Thomas Hospital

Summa Health System

- 3 community not for profit teaching hospitals on 3 campuses
- Over 200 house staff in 13 specialties
- Summa Care, Inc. , for profit, 190,000 lives three major products; commercial, Medicare Choice, and Medicaid HMO
- Level I Trauma
- 35,000 admissions/year
- $460 million(hospitals) and $280 million(SummaCare) revenues/year.

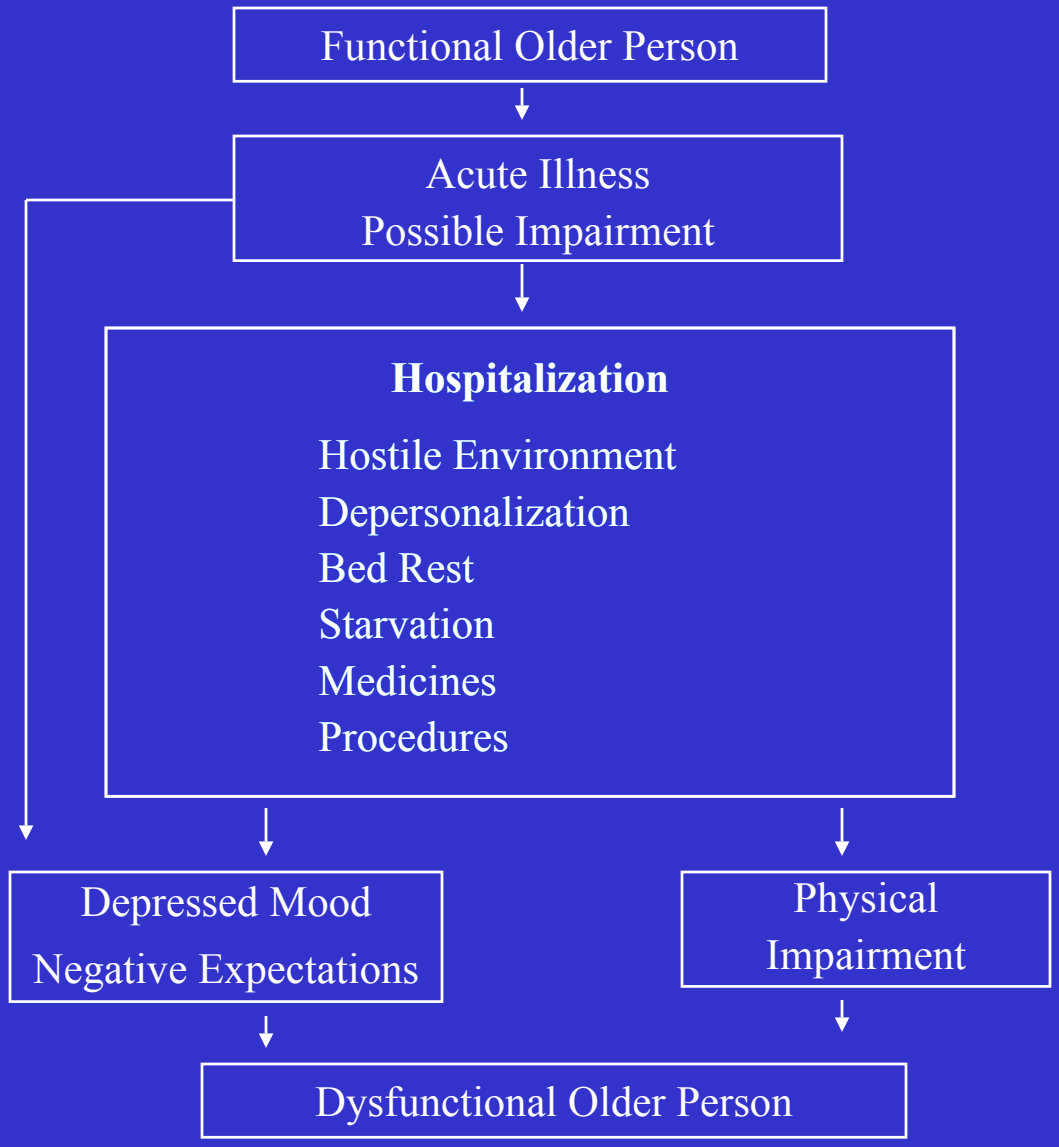
ACE

Acute Care for Elders

Meeting the Challenge
of Providing Quality
and Cost-Effective Hospital Care
to Older Adults

Summa Health System
Akron, Ohio
2001

Conceptual Model of the Dysfunctional Syndrome



ACE
Acute Care for Elders

"Speaking generally,

all parts of the body which have function,

if used in moderation

and exercised in labors to which each is accustomed,

become healthy and well developed and age slowly.

But, if left unused and left idle,

they become liable to disease,

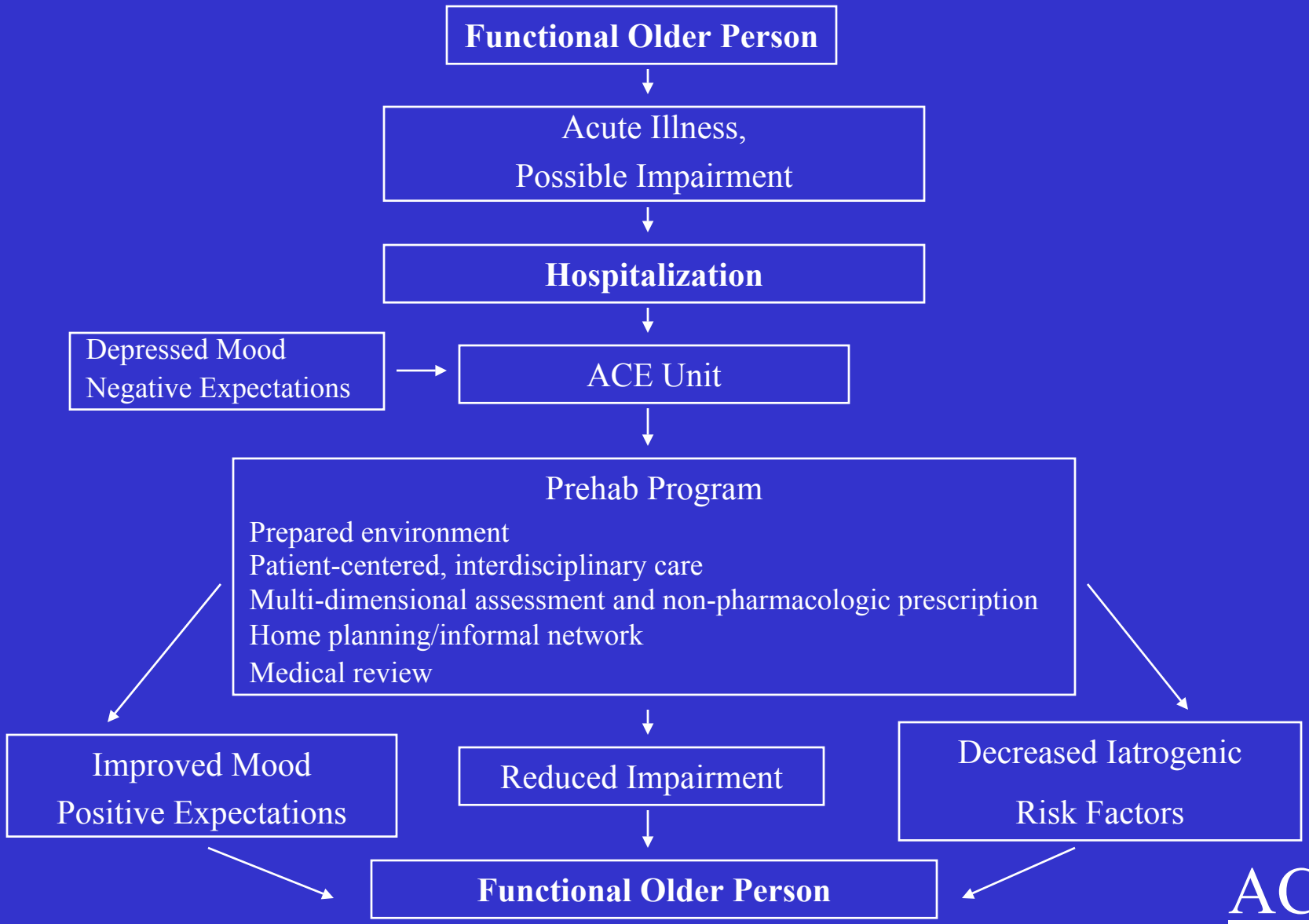
defective in growth and age quickly."

Hippocrates, 370 BC

ACE

Acute Care for Elders

Prevention of the Dysfunctional Syndrome: Conceptual Model



ACE
Acute Care for Elders

Impact of Functional Impairment on Utilization

- Longer LOS
- Increased hospital costs
- Readmission
- Increased long-term care resources

ACE Unit Intervention

- Prepared environment
- Patient-centered care with emphasis on independence
  - Functional assessment
  - Nursing plans of care (e.g., mobility)
  - Interdisciplinary team rounds
- Discharge planning
- Medical care review for geriatric syndromes

ACE
Acute Care for Elders

Build

ACE/Stroke Unit Interdisciplinary Team Communication Sheet

- Serves as basic communication tool
  - **"Academic detailing" to physicians regarding best practice geriatric care**
- Not permanent part of medical record
- Transmits team recommendations to attending physicians when face-to-face discussion not possible

ACE
Acute Care for Elders

Build

ACE/Stroke Unit Interdisciplinary Team Communication Sheet

ACE/**Stroke UNIT - Summa Health System**

Date	*Team Suggestion**	*Physician Response* (circle, initial and date)
	Pt. C/o being "sad". Eval /tx depression	Agree / Disagree
		Agree / Disagree
		Agree / Disagree
		Agree / Disagree

* Physician order is needed to implement.

ACE
Acute Care for Elders

ACE Unit Benefits

- Improved ADL function
- Decreased discharge to long-term care
- + Patient, Nurse, Physician Satisfaction
- Decrease in restraint use
- Changes in process of care :
  - less bed rest
  - early discharge planning
  - fewer high risk medications
  - depression recognized and treated
- No added expense to hospital

C.S. Landefeld et al., NEJM 1995, Counsell SR et al. JAGS. 2000, K.E. Covinsky et al., JAGS 1997.

ACE Analysis:

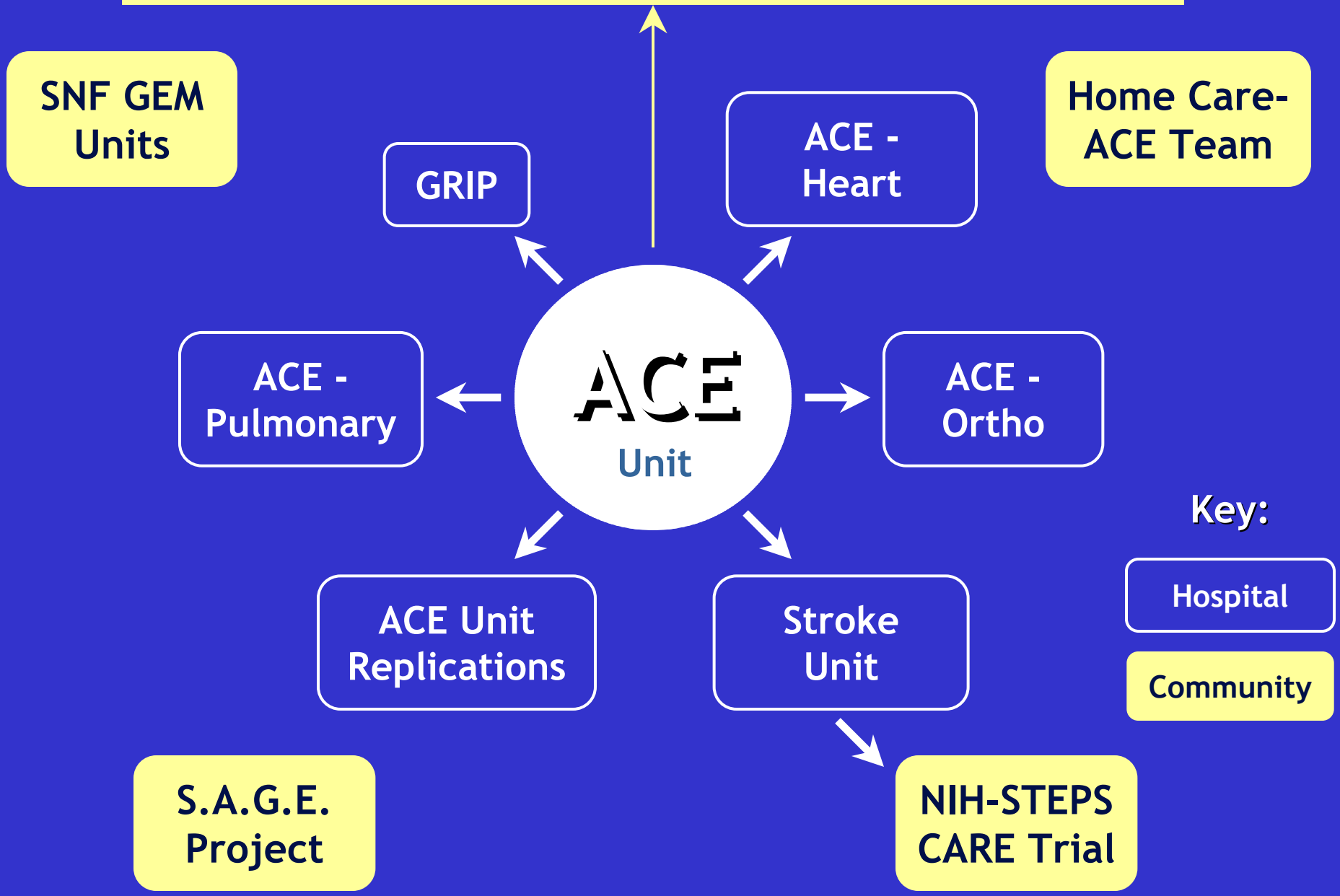
CHF and Pulmonary Disease

- Sub-analysis of ACE Project data base
- Evaluated ACE impact on those admitted for CHF and Pulmonary Disease(COPD, Pneumonia, etc.
- Outcomes:
  - Better functional outcomes
  - ALOS lower for CHF
  - Physical Therapy received sooner
  - Urinary catheter use 25% less on ACE

Buttar AB, Counsell SR. Indiana University Medical School, Department of Medicine, Geriatric Division. Presented at 2002 AGS Annual Conference

Stealth Geriatrics

Care Management for Health Plan



The ACE

Acute Care for Elders

Manual

Meeting the Challenge of Providing Quality and Cost-Effective Hospital Care to Older Adults

Steven R. Counsell, MD

Carolyn Holder, MSN, RN, CS

Laura L. Liebenauer, MA

Kyle R. Allen, DO

Robert M. Palmer, MD, MPH

Denise Kresevic, RN, PhD

C. Seth Landefeld, MD

ACE

Acute Care for Elders

The ABCs of ACE Unit Implementation

Agree

Build

Commence

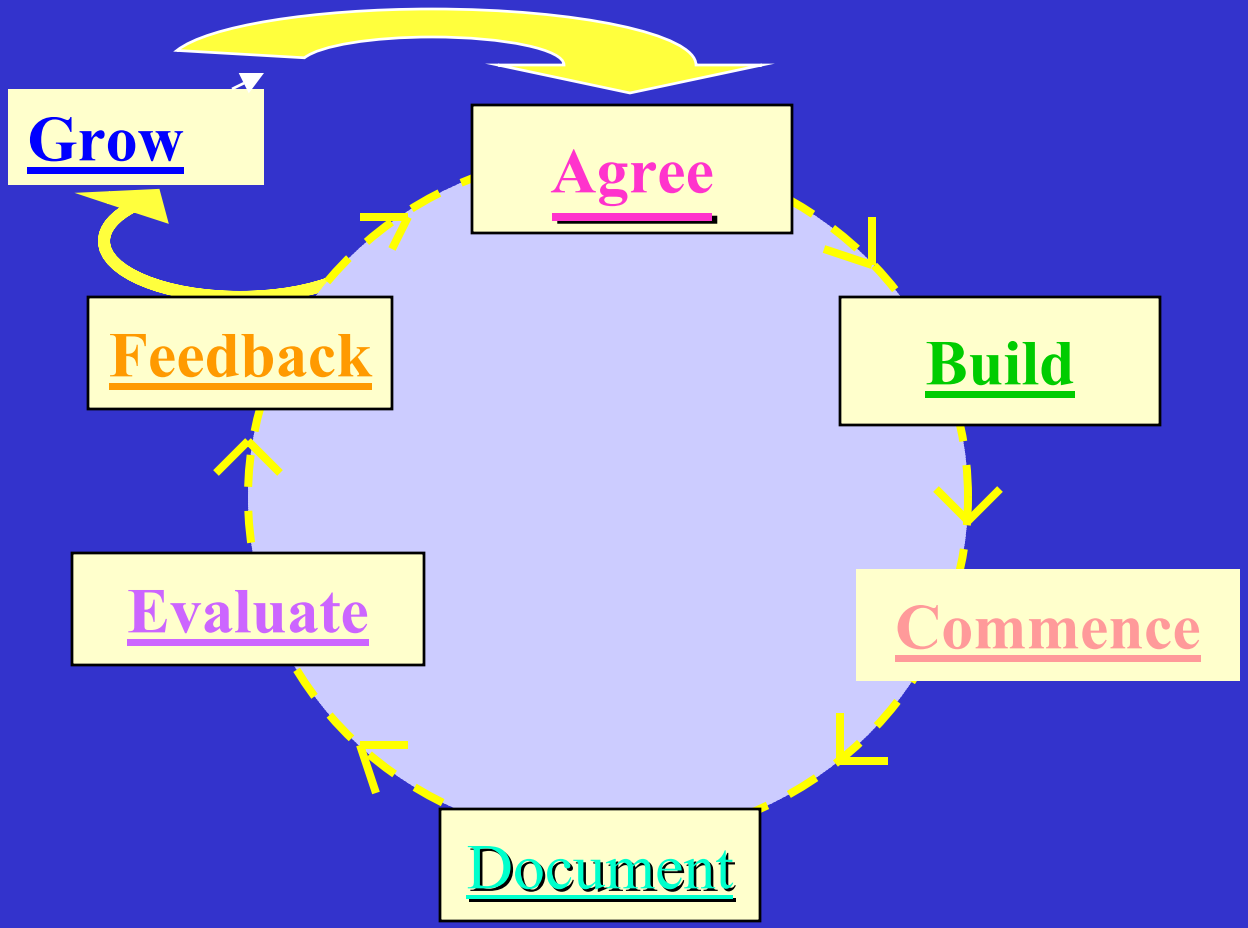
Document

Evaluate

Feedback

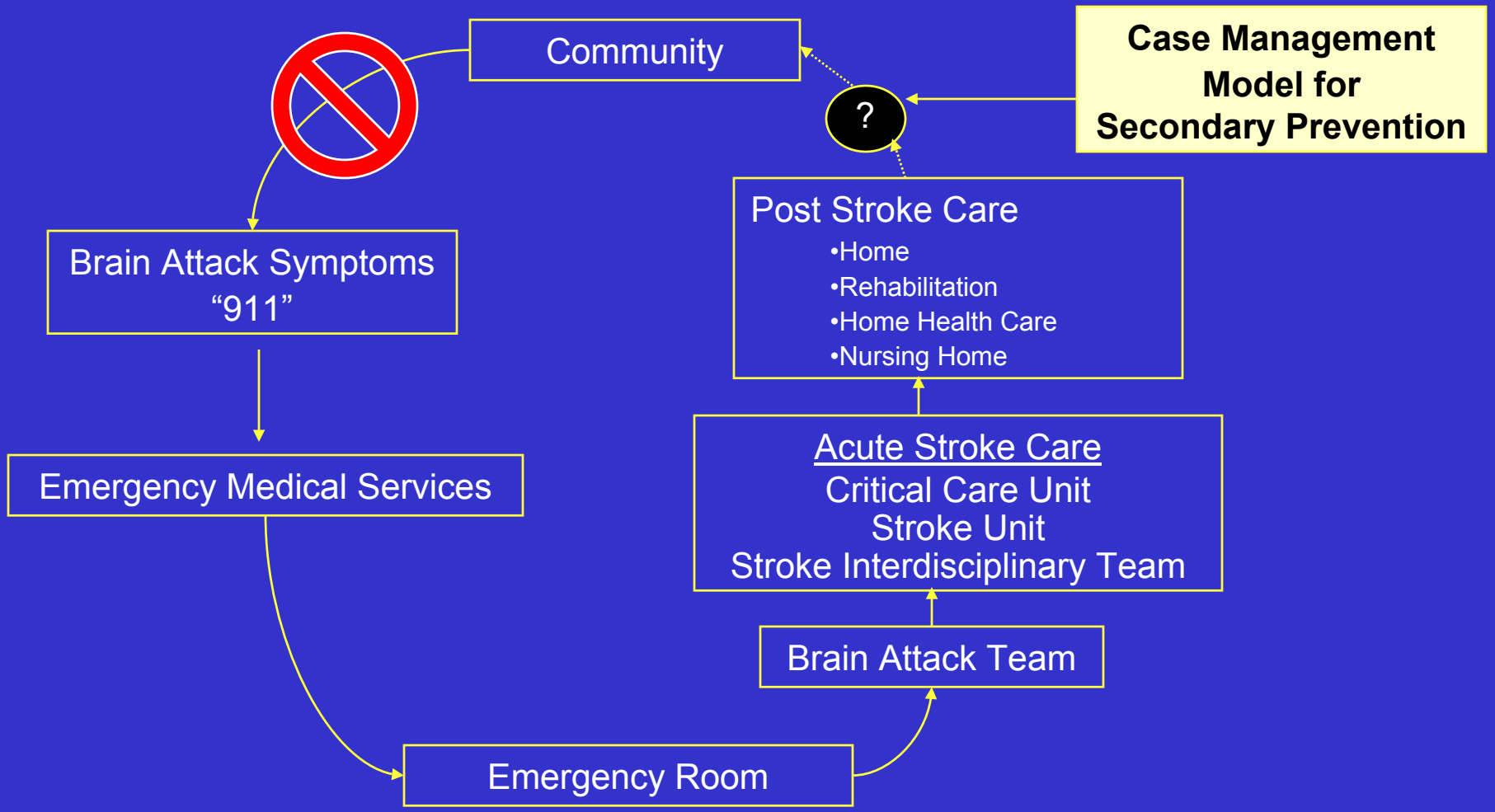
ACE
Acute Care for Elders

The ABCs of ACE Unit Implementation



ACE
Acute Care for Elders

The Stroke "Chain of Recovery"



Stroke Units

Systematic review of 19 RCT of stroke unit care:

- **Improved functional outcome**
- **Increased discharge to home**
- **Decreased mortality**

Stroke Unit Trialists Collaboration, *BMJ 1997; 314: 1151-9*

Key Components of Stroke Unit

- Geographically defined area with care organized for optimal stroke management.
- Interdisciplinary team knowledgeable and enthusiastic about stroke care
- Focus on **early mobilization**
- Ongoing education and team meetings of stroke unit staff

ACE/Stroke Unit Team

Build

ACE/Stroke Unit Interdisciplinary Team Communication Sheet

Stroke UNIT - Summa Health System

Date	*Team Suggestion**	*Physician Response* (circle, initial and date)
	Recommend DVT prophylaxis	Agree / Disagree
	Remove Foley	Agree / Disagree
		Agree / Disagree
		Agree / Disagree

* Physician order is needed to implement.

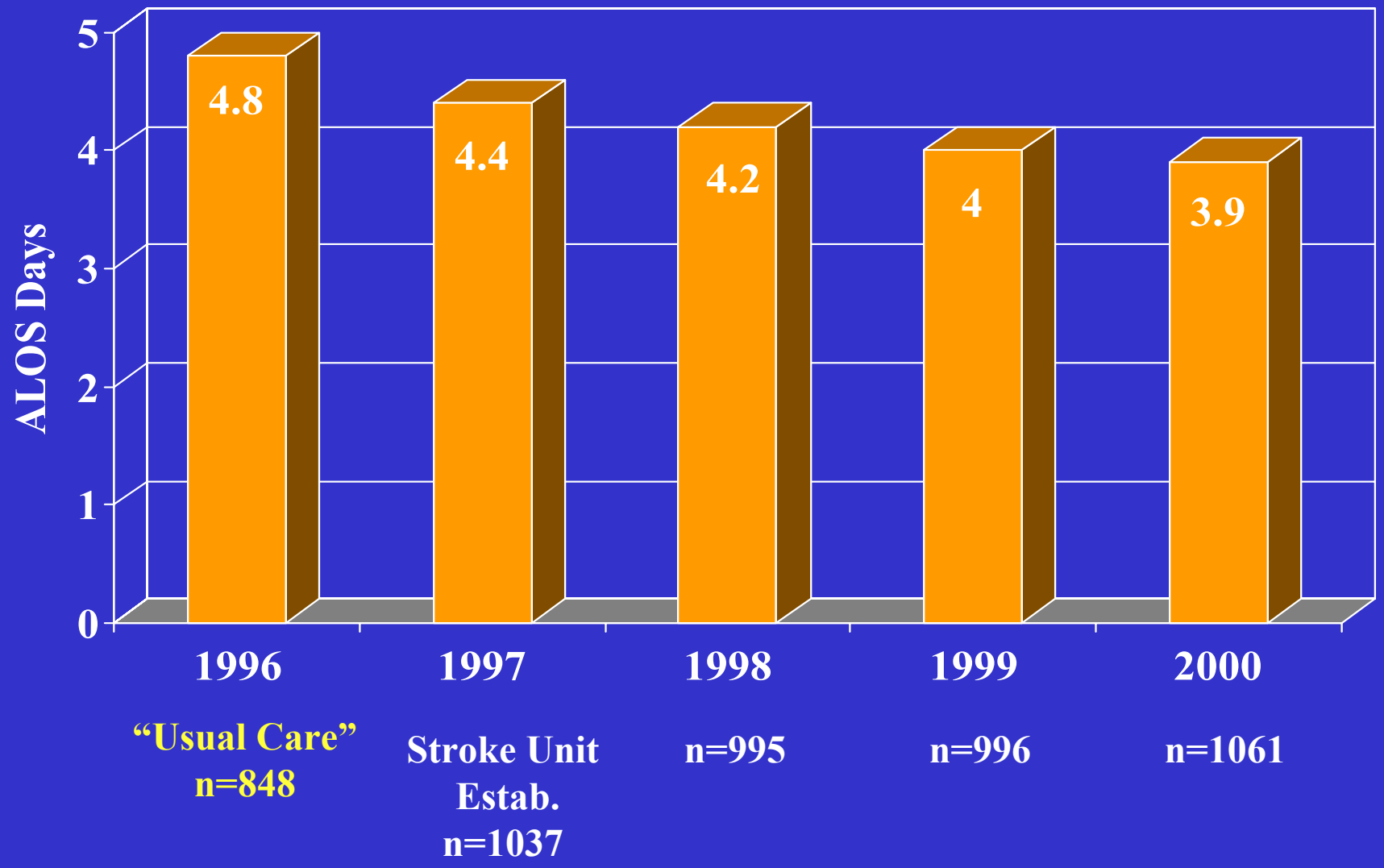
ACE
Acute Care for Elders

ACE to Stroke Unit Observed Benefits

- Established standardized care for stroke patients
  - Stroke admission orders
  - Blood pressure management
  - Dysphagia screen and management
- Decrease in LOS
- Decline in aspiration pneumonia
- Increase in discharge to home
- Declining inpatient mortality rates

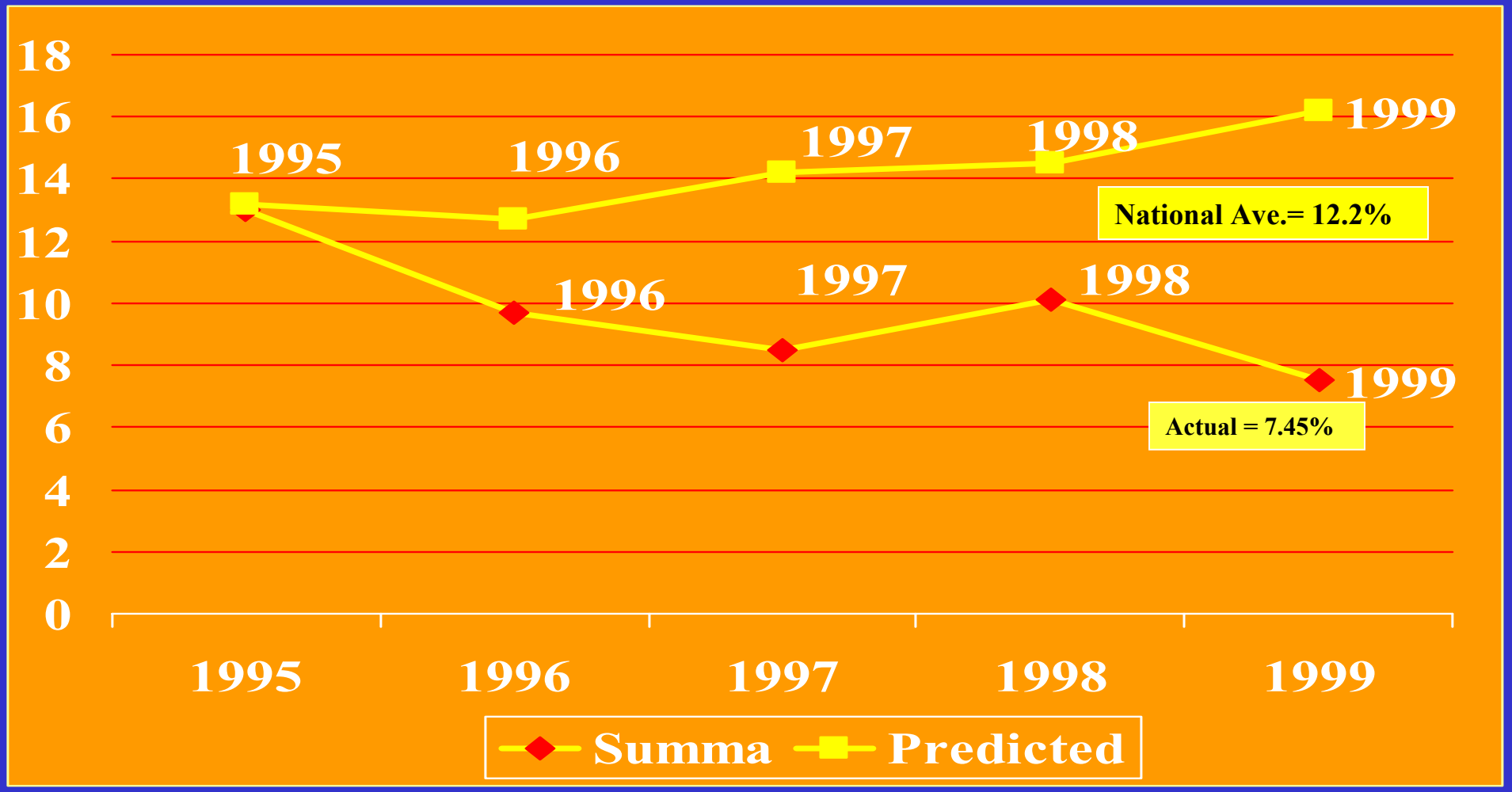
Allen K, et al. JAGS 2003.

Stroke Unit vs. Usual Care: Average Length of Stay



Predicted versus Actual In-Hospital % Mortality

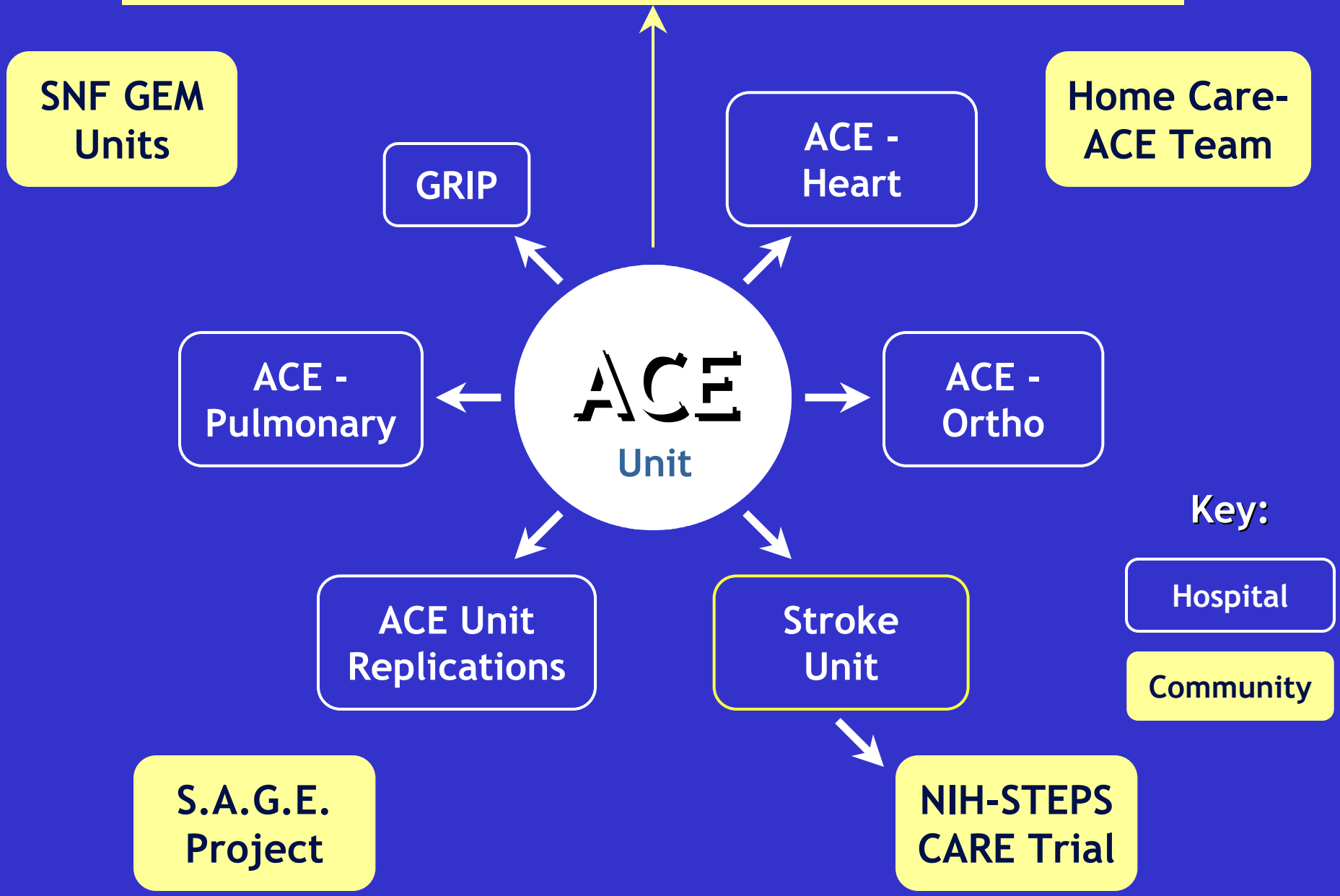
Summa Health System (1997-1999)



Lessons Learned: "It's process stupid"

- "The road to failure (regarding changing care delivery) is carpeted with policies, guidelines, protocols, and 'new buildings'."
- "A squadron of stealth bombers is valuable only when there is a squadron leader, the mission is planned, and all pilots, mission ops, and ground crew are working on the same targets".
- "It is possible to screw up making Jello."

Care Management for Health Plan



Dissemination of ACE

- ACE of Hearts
- Pulmonary Floor "SWAT" 7 West Action Team
- Geropsychiatry
- Care Coordination to Orthopedics
- ACE unit to other campuses
- Skilled Nursing Facility Geriatric Rehabilitation

The STEPS CARE Trial

Strategies To Enhance Post-Stroke Care and Recovery

Kyle R. Allen, DO

Dave Jarjoura, PhD

Susan Hazelett, RN, MS

Glenda Wickstrom, MD, MS

Supported by:

National Institute of Neurologic Disorders and Stroke

Summa Health System

Summa Health System Foundation

Secondary Prevention

NHANES III reported on 1252 survivors of stroke or MI:

- **53% of known HTN not controlled**
- **11% previously undiagnosed HTN**
- **49% of known diabetics not controlled(Hb1c >7%)**
- **46% of known hypercholesterolemia poorly controlled**
- **43% overweight**
- **33% with physical inactivity**
- **18 % current smoking**
- **4% with heavy alcohol use**

Source: ***Ineffective Secondary Prevention in Survivors of Cardiovascular Events in the US Population. Qureshi A, et al. Arch Intern Med 2001; 161: 1621-1628***

Secondary Prevention: A Care Management Role

- Support to PCP to implement treatment and education plan- Decision Support/Delivery System Redesign
- Ensure access to needed therapies- Community Resources
- Educate about warning signs and symptoms of stroke and the appropriate response if symptoms occur- Self Management
- Inform and motivate patient to change lifestyle-related habits, e.g., smoking, exercise, diet, alcohol - Self Management
- Ensure medication appropriateness- Delivery System Redesign

Pilot study

- 96 post-stroke/TIA admitted from home to Summa's acute stroke unit (SU)
- Baseline measures obtained prior to randomization:
  - NIHSS
  - Barthel Index
  - Depression Screen Score
  - Stroke Knowledge Test Score
  - Blood Pressure reading

Intervention

- 1 month post-discharge the care manager (CM) conducted an in-home assessment on IG subjects
- 7-10 days after home assessment CM reviewed case with Post Stroke Consultation Team (CM, geriatrician medical director of stroke unit, neurologist, dietician, social worker, and SU Clinical Nurse Specialist)
- A care plan was developed for each IG patient.
- PCPs and CM worked collaboratively to implement treatments and care plan recommendations.

PROBLEMS AND RECOMMENDATIONS

A. Risk Factors: HYPERTENSION/HYPERCHOLESTEROLEMIA/ DIABETES MELLITUS/WEIGHT/ SMOKING/STROKE/ATRIAL FIBRILATION (IN AND OUT OF SINUS RYTHYM

Patient:	**Targets:**
Total Cholesterol 177mg/dl	Total Cholesterol <200mg/dl
LDL **103mg/dl**	LDL <100 mg/dl
HDL 50.6mg/dl	HDL ≥40 mg/dl
Triglycerides 119mg/dl	Triglyceride<200mg/dl
BP **180/90mmHg**	**< 130/85 mmHg**
	Diabetics <**120/80 mmHg**
Weight165	
Body Mass Index (BMI) kg/m(2) **28**	BMI = 21-25kg/m2
FBS 125	Fasting blood sugar < 110 mg/dl

MEDICAL ISSUES FOR PHYSICIAN REVIEW AND POSSIBLE TREATMENT:

Problem **Recommendations**

A.1 Evaluate need for use of **Warfarin therapy**. Patient has evidence of **multiple embolic strokes, LV segmental dysfunction, history of intermittent atrial fibrillation(induced with Dobutamine stress test).** Clarify choice of anti-platelet therapy and evaluate for possible use of warfarin therapy given the benefit of stroke prevention out weighing risk of treatment.

A2. Consider adding **thiazide diuretic**, e.g. **hydrochlorothiazide.** (ALLHAT-JAMA.288;2002.) See **"STEPS CARE Resource and Guidelines Brochure".**

B. FUNCTIONAL IMPAIRMENT/URINARY INCONTINENCE/DEPRESSION

Patient has right-sided hemiparesis. Depression screen 4 out of 10. A score of 6 or greater indicates probable depression. Currently treated with **Zoloft 25mg.**

Recommendations

- Obtain PVR and UA for evaluation of urinary incontinence.
- Titrate **Zoloft up to maximum effective dose of 50-125mg qd**.
- Case manger to assist with care giving issues. Patient has Lifeline and PASSPORT services. Case manager obtained replace SCAT transportation card for patient.

Methods & Results

- Complete data on 73
- Compared the intervention group (IG) to a control group (CG) across 5 domains of stroke recovery and secondary prevention.
- Domains were:
  - Neuro-motor function
  - Severe Complications
  - Quality of Life
  - Management of Risk
  - Stroke Knowledge
- IG was superior to the CG on the Profile of Health and Stroke Recovery, global test ($p < .0001$)

Post-Acute Geriatric Rehabilitation Versus Usual Care in Skilled Nursing Facilities: Differences in Health Care Utilization at Discharge and One Year

B. Kauh, MD*, T. Polak, MSN*, K. Hua, MS, S. Hazelett,MS***

Presented at 2002 Annual Meeting of the American Geriatrics Society

***Division of Geriatric Medicine, Summa Health System**
****Office of Biostatistics, NorthEastern Ohio Universities College of Medicine**

Support for this study was provided by the Summa Health System Foundation

A Comparison of Geriatric Rehabilitation vs. Usual Care: Differences in Length of Stay, Functional Outcomes, and Discharge Disposition

- Two facilities located geographically close; shared same management and rehabilitation companies
- All patients were admitted from the acute hospital from home
- GRU intervention: comprehensive geriatric assessment, weekly IDT meetings, geriatrician visited the GRU 2x / week, nurse practitioner was present 4-5x / week

Improved Outcomes

- Improved functional outcomes(Improved ADL scores)
- Shorter LOS (17 vs 26) for GRU patients
- Greater (73% vs 57%) discharged to community setting
- Improved satisfaction patients, families and staff
- Decreased SNF staff turnover

Kauh B, et al. Submitted Journal of American Geriatrics Society, 2004.

ACE Model Across the Continuum: Integration with community services:

Summa and the Area Agency on Aging

The SAGE Project (1995):

- Ohio Medicaid Waiver program- PASSPORT
- An interagency interdisciplinary team
- Referral and communication protocols
- AAoA RN PASSPORT assessor placed in hospital with ACE teams
- Increase referrals for comprehensive geriatric assessment
- Plans for an ACE model and team for "high risk".
- Evolved to Interdisciplinary Community Aging Network (ICAN) and includes Alz Ass., APS etc.

Care Management: "The Holy Grail"

- Developed Care Management Program for frail elders for the Medicare Choice Program.
- 5% of population using >80% of resources.
- Average PMPM for this population $2800.
- Called "The Holy Grail" of Summa Health System

The Care Management Program

- System was losing significant dollars on the Medicare Choice product (13,000 members).
- Task force with representation from across system was established to develop a model which would:
  - Identify at risk ***SummaCare Secure*** members at all portals of entry
  - Follow patients over time and across settings rather than be event specific
  - Have an interdisciplinary team focus

The Care Management Program

Con't.

- Link information between physicians, providers, patients and levels of care
- Blend the process of clinical decision making within the context of utilization management principles.
- Improve patient outcomes while decreasing healthcare expenses

The Care Management Model

The Care Management Model uses six key principles to improve health, functional status, and quality of life for at risk older adults who are SummaCare Secure members.

- **Targeting**
- **Screening**
- **Assessment- CGA**
- **Care Planning- Interdisciplinary Teams**
- **Implementation- Linked to/with PCP**
- **Monitoring- care coordination**

Care Management Financial Outcomes (2002)

*National benchmark is **$2,500** PMPM*

	Actual	Budget	Variance
PMPM Medical expense	**$1,201**	**$1,783**	**(582)**
PMPM Administrative expense	**191**	**213**	**(22)**
Total Expense	**$1,392**	**$1,996**	**(604)**

Keys for Success

- Leadership, leadership, leadership
- Persistence of vision
- Challenge the status quo- not of the ‘faint of heart’.
- Start low and go slow
- Strive for the win/win partnership always
- Drive the issues using Evidenced Based Approach
- Document, Evaluate and Feedback

Barriers

Intrinsic

- Not getting the 'Agree'
- Teams are delicate
- Staff turnover
- Demonstrating value
- Aversion to change

Extrinsic

- Time and resources
- Payment issues
- System strategic vision
- Administrative and policy changes
- Aversion to change


EXIT