

DEVELOPING A SUSTAINABLE COMMUNITY-BASED FALLS PREVENTION PROGRAM

IOA Seminar Presentation 1-15-09

Carol Giuliani, PT, PhD

*Professor, Division of Physical Therapy
Allied Health Sciences, SOM
UNC Chapel Hill
Senior Research Scientist,
UNC Institute on Aging*



- This presentation includes a brief description of the initial projects in the **SOM Futures Grant** that provided the basic model for community-based falls prevention.
- We are in the process of planning our next step for modifying our model for sustaining a fall prevention programs in NC communities.
- I will share our conceptual framework and plans, and hope to get some valuable feedback from the group.
- Recent funding from the **Community Connections Grant - Carol Woods Foundation** will support our modifying the model, implementing a program in Chatham County, and establishing community connections in western North Carolina.



Developing the collaborative team

- Academic - UNC-CH: CAH, AHS, IOA, Nursing, Public Health
- Academic - WCU, ECU?, Community Colleges
- Community Partners - Orange County Department on Aging, Chatham Council on Aging, Chatham Hospital, - identifying other interested groups



Need for Community Based Prevention Programs

- 2000 and 2030 older adult population expected to grow by 121% [Demographic Unit, Office of State Budget and Management, 2006]
- Among older adults, falls are the leading cause of accidental death and emergency department admissions
- More than 30% of older adults fall each year
- 25% who have hip fractures will die within six months
- Costs for medical care - 50% of those hospitalized are discharged to nursing homes
- Falls create a fear of falling, decreased activity, social isolation, depression, and reduced quality of life

CDC, AOA 2007



An Investment for the Future Grant
UNC Chapel Hill School of Medicine

Improving the Health of North Carolina's Underserved Elders

Jan Busby-Whitehead, MD
Steve Kizer, MD
Carol Giuliani, PhD, PT



Specific Aims for the Futures Grant

(Aims 1 & 3 relevant to this project)

1. **To establish and maintain a community-UNC-HCS partnership to improve care of vulnerable elders in Orange County and provide a platform for research and teaching**
2. To improve the access to, navigation through, and transitions to and from the UNC-HCS for community-living frail elders including those in long term care facilities
3. **To expand community-based preventive services for vulnerable elders in Orange County, through the development of a prevention clinic and balance program**



Projects to address AIM 3

1. Establish wellness and falls prevention clinic.
2. Initiate a falls intervention program in the community
3. Establish a balance training program for older adults at risk for falling (*I will not discuss the details of the balance exercise today since Dr Shubert discussed this project last fall at seminar*)



1. Establish a wellness and falls prevention clinic.

Multidisciplinary Wellness Clinic at the Seymour Center

Started: January 8th 2008 Time: 8:30 am to 1pm Tuesdays
Focus: Fall prevention (mood, memory, and mobility)
Team: R Daley-Placide, MD, Geriatrician; J Ivey, Pharmacist; C Giuliani, PT; V Talley, OT; J Gerard MSW
Links: to other programs at the center (Aging Transitions, IMPACT, Exercise Classes, etc) and community (Aquatics, Meadowmont, etc)



Progress January to November 2008

- 72 clients served by the multidisciplinary clinic, 49 follow-ups
- 70% made a change because of clinic recommendations
- Most problems identified were with balance and falls, depression, medications
- Recommendations made for exercise or physical activity, medication change, PT, social work counseling, PCP, and GEC.
- Students and fellows from various disciplines participated: medicine, pharmacy, OT, PT, social work, nursing

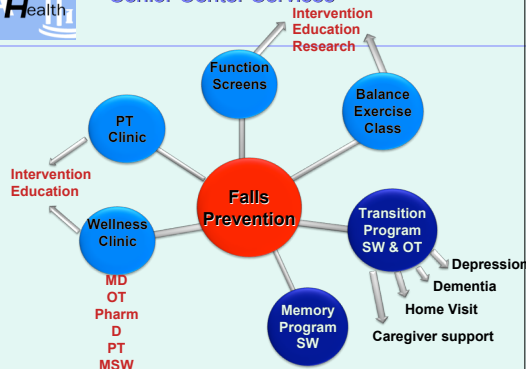


2. Initiate a falls intervention program in the community

- Falls function screening at the senior center
 - July 07- Dec 08, 353 seniors screened at Seymour
 - 34% identified with balance problems
 - Tested on 9 measures including strength, flexibility, endurance, and balance.
 - Each person received a copy of their scores compared to norm values and individual consultation
- Falls education programs in the community
 - Cedar Grove and Hillsborough (rural OC)
 - Health fairs - Churches Apex and Fuquay
 - Professionals - Asheville, Raleigh, Greensboro,
 - National PT meeting - Nashville



Good Integration With Other On-Site Senior Center Services



Next Step: Expand services to other community sites

- Initiate Fall prevention programs at the Senior Center in Hillsborough and Chatham Senior Centers in Feb 09.
 - screening and intervention programs (Alamance, Chatham, Henderson Counties)
- Work with NC Falls Coalition and CGEC to develop web based materials
 - Service providers - education materials, falls screens, intervention manuals
 - Consumers - educational materials

Center for Aging & Health **Limited Community Programs in North Carolina**

- Several researchers and the CDC, AOA, NCOA suggest an urgent need for community-based falls prevention programs
- Currently, there are inadequate numbers of health professionals and community service providers trained to conduct falls screening and to provide evidence-based falls prevention programs
- Access to falls prevention in rural areas of North Carolina is limited
- Sustainability is a major problem (cost and resources)

Center for Aging & Health **Coordination for Successful Implementation**

Successful implementation requires:

- Effective outreach
- Coordinated training strategies
- Involvement of other health promotion agencies
- Sustainable infrastructure & long term committed partners

Sustainability Model - Administration on Aging

Center for Aging & Health **How are community-based models possible?**

- Create models that are feasible
- Need to identify and involve many "investors"
- Develop new community partnerships
- Develop community capacity
- Create ready access to proven programs and services

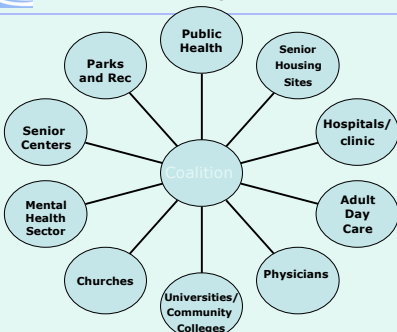
Sustainability Model - Administration on Aging

Center for Aging & Health **Shared Vision & Expectations**

- National Agencies
- State Departments of Aging and Public Health
- AAA
- Foundations
- Associations
- Others partners with similar goals

Sustainability Model - Administration on Aging

Center for Aging & Health **Targeted Community Partners for Developing Coalitions**



Center for Aging & Health **Best bet to partner with organizations who:**

- Have a commitment to falls prevention
- Care about falls prevention
- Will benefit from participation
- May have a falls program development objective, but do not have the resources or expertise



Our model for building community capacity

- Our overall purpose is to develop community-based falls prevention programs that can be adopted in communities throughout NC
- **Key concepts**
 - Develop a model based on evidence-based components
 - Partner with key community people and organizations
 - Model must be flexible enough to fit the resources and realities of communities that do not have access to the multifaceted resources of UNC Chapel Hill



Determine key components and what can be modified

- Partner with the Chatham Council on Aging and other county resources
- Partner with Western Carolina University (WCU) and surrounding community resources
- Develop key and modifiable components
- Test the feasibility and modifications for our model
- Emphasis on sustainability



Our goal is to reduce falls by:

- 1) Creating an infrastructure in the community
- 2) Increasing capacity and resources in the community by training health professionals and community service providers,
- 3) Providing screening to identify seniors in the community who are at risk of falling; and
- 4) Identifying and developing referral resources in the community, such as balance exercise programs, medication assessment, education programs, and interdisciplinary care management.



Developing an Infrastructure

- With community partners, we identify key resources (e.g., pharmacists, nurses, physical therapist, MD, social worker, lay leaders, community or senior centers, community health centers, etc)
- Identify feasible programs and conduct training for professionals and other providers who want to carry out components of the program.
- We expect resources will differ in each community, and the infrastructures will have different profiles.
- Our expectation is to develop an infrastructure that is feasible and sustainable within each community.



A flexible model

- Our intention is that the model template is flexible so it can be modified for each community
- For example, a physician centered multidisciplinary team model may not be practical or feasible
- Key health personnel - nurse or nurse practitioner, PT, pharmacist, and social worker
- Non health personnel who could provide screening and interventions
- We are prepared to train personnel that are available in the local community
- Using existing services and facilities in the community increases the likelihood that components of the program are replicable and sustainable



Non-health providers

- In addition to health professionals the infrastructure should include community service providers
- We will partner with and train community providers who work with seniors
- Senior Centers, Councils for Senior Citizen, and other agencies/organizations across NC provide critical services and education for seniors
- Each may have different programs but, all are committed to keep seniors functioning in the community



Academic Institutions

- Partnering with local academic institutions, including community colleges, strengthen the infrastructure and provide resources
- Local faculty and students may be trained to conduct falls screenings, exercise classes, medication reviews, activity programs, and participate in interdisciplinary care management
- These current and future health professionals gain valuable training and add to the resources in their communities
- WCU goal is to be a regional falls prevention center for Western Carolina (academic programs in Nursing, Physical Therapy, Social Work and Exercise Science)
- MAHEC resources for education



Education strategies and resources

1. *Provide on-site individual and group training for health professionals and other community service providers. Faculty and students at UNC CH will provide consultation for local teams over the duration of the grant project.*
2. *Conduct two Falls Workshops per year at selected geographical locations in NC (Partner with AHEC and academic partners)*



3. *Develop a website to provide community resources and initiate a listserv or blog for easy communication. (e.g., consumer education handouts, falls screening forms, a manual for exercise leaders, medication screening, community resources with contact information, etc.) (with CGEC, NC Falls Coalition)*
4. *Fourth, we explore computer based consulting for remote providers. This will be a specific strategy for WCU.*



Develop Balance Exercise Programs

- Evidence-based program based on Stay Safe Stay Active program (Barnett 2003, CDC and NCOA)
- Train physical therapists, or exercise leaders in the community to conduct classes designed to improve balance, strength, and cognition
- Teach exercise providers to modify classes as necessary, conduct falls risk screening, and measure change using brief simple measures.
- Help broker resources through volunteers at local community colleges, high schools, retirees, etc.



Identify and support community resources for interventions

- Other programs available in the community may be good resources for falls prevention
- Share information within the community network/coalition and with consumers



Evaluation strategies (developing strategies and measures)

Measure outcomes related to these two major goals:

- 1) through screening, identify elders who are at risk of falls
- 2) develop and support community resources/programs
- 3) reduce risks through referrals to community programs such as; physical and cognitive activity programs, balance exercise programs, modifying medications, environment/home safety assessments, education programs, etc



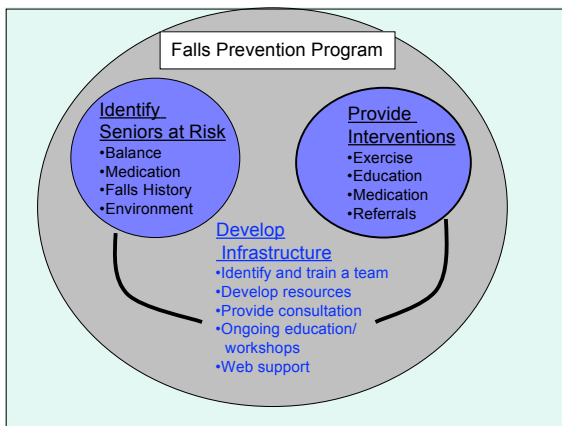
Possible data collected

- the number of people trained
- their capacity and perceived competence to carry out screens, exercise, etc.
- number of seniors screened,
- referrals to resources in the community,
- numbers of seniors participating in balance exercise class and improvements in balance
- falls over 6 months by developing a falls surveillance program



Characteristics for Sustainability

- Readiness and shared vision of community partners
- Develop the resource capacity of each community within the affordances and constraints identified
- Senior centers/community activity centers/clinics/resources should be accessible and familiar to seniors
- By training local personnel in the community, and involving nursing and allied health students from local academic institutions we will have a sustainable source of resources to conduct screenings and exercise classes
- By partnering with academic institutions and AHEC we can continue to present biannual falls workshops across the state.
- Maintain website with academic partners and graduates students at UNC/WCU



Outcomes for this initial project to develop a flexible model

- More specialized services for seniors
- More accessible care
- Increase the number of professionals and service providers with skills for falls screening and intervention
- Training Opportunities
 - PT, OT, SW, RN, Pharmacy, Public Health, EXSS
- Research opportunities



Comments and suggestions appreciated

Carol Giuliani, PT, PhD
 Email carol_giuliani@med.unc.edu
 Phone (919) 843-8792