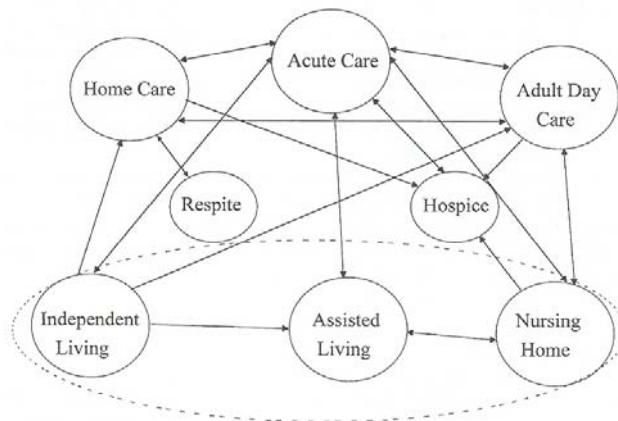


The Continuum of Care

1. Complete continuum of care refers to a spectrum of services designed to provide all of the social and health care needs of people as they age.
2. This spectrum ranges from independent living to acute hospital-based care and nursing home-based long-term care.
3. The factors that determine which level of care a person needs are functional status, medical needs and goals of the patient.
 - a. Functional status:
 - i. Instrumental Activities of Daily Living (IADLs)
 1. Ability to use telephone, shopping, food preparation, housekeeping, laundry, mode of transportation, responsibility of medications, and ability to handle finances
 - ii. Basic Activities of Daily Living (BADLs)
 1. Bathing, dressing, using toilet, continence, transferring, and feeding
 - b. Support services available
 - i. Human capital
 1. Availability of family and/or paid caregivers
 - ii. Financial
4. Levels of dependency:
 - a. Independent:
 - i. A person at this level can function independently, even with a chronic health condition.
 - b. Independence threatened:
 - i. A person at this level has experienced changes in her/his health conditions or experience changes related directly or indirectly to the aging process. The results are such that symptoms may be more prominent or there may be some mild difficulty with the Instrumental Activities of Daily Living (IADLs)
 - c. Independence delegated:
 - i. A person may have significant trouble with the IADLs, and may have some trouble with some of the BADLs
 - d. Dependent:
 - i. A person at this level generally needs 24-hour care, and is totally dependent upon someone providing that care.
5. Within this model (illustrated below), the most important goal is to accomplish transitions from one setting to another with a minimum of disruption in care:



The long-term care continuum. Arrows indicate transitions in care. Dotted lines indicate continuing care retirement community.

6. Home-Care/Home-Based Services:
 - a. These services are provided at home either over a long period of time for the management of chronic conditions or are used to transition a patient back from acute care to independent or, even assisted living. In-home services are needed by older adults through out the four levels of dependency defined above
 - i. **Medicare Certified Home Health Agencies** - include the services of a nurse, home health aide, rehabilitation services, social service, nutritionist and other ancillary provide
 - ii. **Private Duty Home Care Agencies** - These agencies provides the same service as home health agencies, but the services are not reimbursed under Medicare.

7. Community-Based Services:
 - a. **Senior Centers** are funded by the Department of Aging and is a place for independent seniors to gather for social and recreational activities
 - b. **Adult Day Care Centers** are an extension of a senior center with a focus on health care services. The independence level of most seniors coming to adult day care is threatened or delegated and therefore assist older adults with activities of daily living such as bathing, eating, ambulating, medication management, etc.

8. Facility-Based Services:
 - a. Facility based services offer a full continuum of options for older adults who may range from being totally independent to totally dependent.
 - b. **Senior Housing** - is primarily for those older adults who are independent, but with the onset of many home and community-based programs, these communities are well suited for seniors whose independence is threatened or close to being delegated.
 - c. **Independent Living** - is a hospitality service designed for those older adults whose independence is threatened or may be moving towards having their independence delegated. This type of housing includes apartments or congregate living units. Independent living facilities are not licensed as health care facilities. The residents are required to eat at least one meal offered by the facility.
 - d. **Personal Care/Assisted Living** - is also a hospitality service with an increased focus towards health and medical services and is most suitable for those older adults whose independence is threatened and/or delegated.
 - e. **Nursing Facilities** - is for those older adults whose independence and functionality is very much compromised. Nursing facilities offer many levels of care ranging from subacute care to intermediate level of care.
 - i. **Subacute care** - is for patients who do not need acute care, but are not ready to be discharged to a routine nursing facility or to home. Subacute care may be offered in a distinct unit of a nursing facility or in a transitional care of an acute care hospital. Medical and Nursing care in a subacute setting is intense with a focus on rehabilitation and discharge of patient to a nursing facility or home. The Average LOS for many patients is less than 30 days.
 - ii. **Skilled Nursing Care** – is offered in all nursing facilities that are Medicare certified. The intensity of nursing care is high with a focus on rehabilitation and discharge to another level of care within the nursing facility or home. Physician involvement is high, but not as intense as subacute care.
 1. Take home points:
 - a. Each year more than 1.6 million Americans receive care in one of over 17,000 long-term care facilities (LTCFs) (Bernabei, Gambassi et al. 1999).
 - b. The number of beds committed to long-term care (LTC) services in the U.S. exceeds the number of acute care beds (Strahan 1997), and this number is expected to grow over the next several decades.

- c. The lifetime risk of LTCF placement for an individual 65 years of age and older is estimated at 43% (Hazzard, Blass et al. 2003).
- iii. **Intermediate Care** – is primarily focused on long-term care of patients who need 24 hour nursing care. To reduce nursing home spending, this level of care is targeted by CMS and DPW to transition to home and community based services.
- iv. **Long-Term Acute Care (LTAC)** – is another facility based long-term care option available for older adults. Unlike nursing facilities, LTAC is licensed as an acute care facility and must meet the requirements of an acute care facility. The patients in an LTAC must have acute care needs, with an ALOS of more than 30 days. Since the benefit is categorized as acute care, this level of care utilizes a persons acute care days and must be used only when a person has medical complications that cannot be cared for in a subacute or a skilled nursing facility. Many times, for a medically complex a patient, Medicare benefits can be maximized if the patient is transferred to an LTAC until medically stable before discharging him to a skilled facility.
- v. **Acute Rehabilitation** - Acute rehabilitation is also a facility based long-term care option available for older adults. Unlike nursing facilities, acute rehabilitation is licensed as an acute care facility and must meet the requirements of an acute care facility. The patients placed in an acute rehab facility have a very aggressive care plan that most older adults are unable to tolerate. Medicare benefits are optimized when older adults needing rehab are first transferred to a skilled facility or a transitional care unit for strengthening programs and then transferred to a rehab facility for aggressive rehab before discharged to home or another level of care.
- f. **Program for All-Inclusive Care for the Elderly (PACE)**. This unique program integrates primary care, acute, and LTC for frail older adults (defined as persons eligible for nursing home placement) who meet certain income restrictions. These programs are based at adult day health centers where physicians, nurse practitioner, ancillary, and social services are provided on-site. Care plan goal focus is on improving the QOL of life for their enrollees. To enroll, patients are required to give up their primary care physician. At present, there are 30 PACE sites serving older adults in 13 states.

9. Programs Offered Across all Sites:

- a. **Respite Care** – is available on a short term basis to provide relief to the caregiver. Respite care can be provided as an in-home or a facility based service. Respite care may range for one day to three months. It may also be used as a trial period for someone who may need to be permanently placed in an institutional setting.
- b. **Hospice** is a concept that deals with “end of life” care in any setting from home to nursing facility. It provides comfort care for the patient as well as counseling for the caregivers, including through the bereavement period.
- c. **Palliative Care** is for someone who may not be at the end-stage of their life, but has decided to comfort care only. If there is a skilled need, Palliative care may be reimbursed by Medicare, otherwise it is mostly paid through private funding.

10. Transitional care:

- a. Transitional care is defined as a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location (Author, 2003)
 - i. Transitional care encompasses the sending and receiving aspects of the transfer, includes logistical arrangements, education of the patient and family, and coordination among health professionals involved in the transitions (Coleman & Boulton, 2003)

- b. The growing national trend for clinicians to restrict their practices to single settings and not to follow complex patients as they move between settings heightens the potential for fragmentation of care. During transitions, these patients are at risk for medical errors, service duplication, inappropriate care, and critical elements of the care plan “falling through cracks.” Ultimately, poorly executed care transitions may lead to poor clinical outcomes; dissatisfaction among patients; and inappropriate use of the hospital, emergency, postacute and ambulatory services. (Coleman, JAGS 2003)
- c. AGS Position Statement on Improving the Quality of Transitional Care for Persons with Complex Medical Needs:
- i. **Positions 1:** Clinical professionals must prepare patients and their caregivers to receive care in the next setting and actively involve them in decisions related to the formulation and execution of the transitional care plan.
 - ii. **Positions 2:** Bidirectional communication between clinical professionals is essential to ensuring high-quality transitional care.
 - iii. **Positions 3:** Policies should be developed to promote high-quality transitional care.
 - iv. **Positions 4:** Education in transitional care should be provided to all healthcare professional involved in the transfer of patients across settings
 - v. **Position 5:** Research should be conducted to improve the process of transitional care.
- d. Literature on the impact of transitional care on medications:
- i. Beers MH, Dang J, Hasegawa J, Tamai IY. Influence of hospitalization on drug therapy in the elderly. *Journal of the American Geriatrics Society*. Aug 1989;37(8):679-683.
 - ii. Omori DM, Potyk RP, Kroenke K. The adverse effects of hospitalization on drug regimens. *Archives of Internal Medicine*. Aug 1991;151(8):1562-1564.
 - iii. Boockvar K, Fishman E, Kyriacou CK, Monias A, Gavi S, Cortes T. Adverse events due to discontinuations in drug use and dose changes in patients transferred between acute and long-term care facilities. *Archives of Internal Medicine*. Mar 8 2004;164(5):545-550.
 - iv. Smith JD, Coleman EA, Min S. A New Tool for Identifying Discrepancies in Postacute Medications for Community-Dwelling Older Adults. *The American Journal of Geriatric Pharmacotherapy*. 2004;2(2):141-148.
- e. A hypothetical cohort of 100,000 adults over 65 over the course of year:

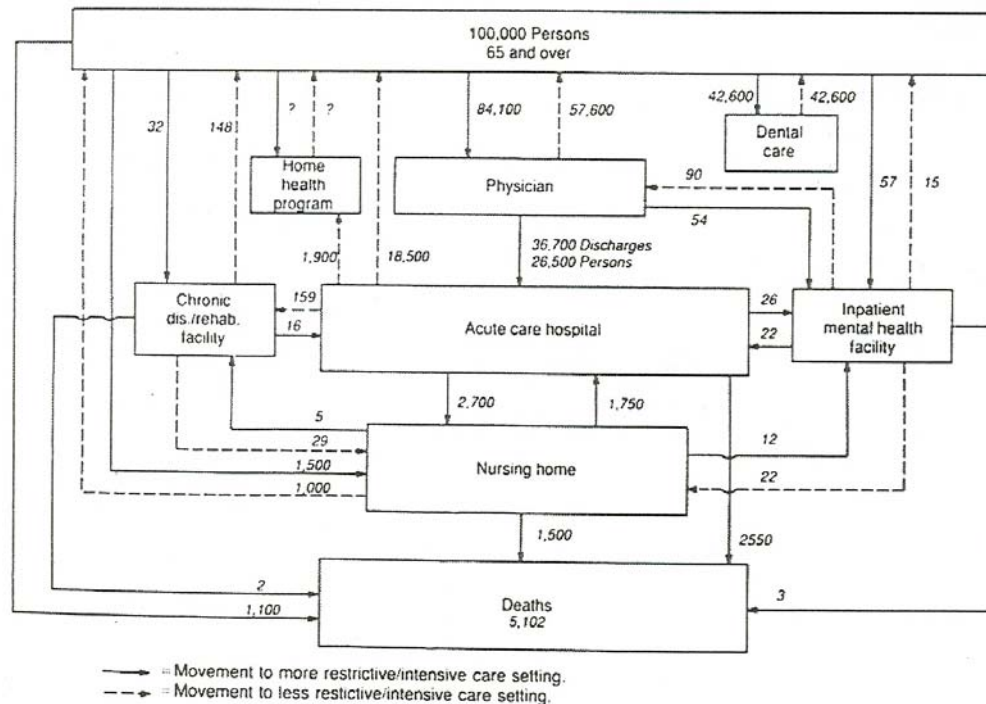


Figure 15-1 Annual movement of persons age 65 years and older through the health care system. Adapted from AHCPR Monograph: *Tracing the Elderly Through the Health Care System: An Update*. Report No. AHCPR 91-11, Washington, DC, US Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, 1991.

- f. Take home points:
 - i. 94% of this cohort would have been seen by at least one physician
 - ii. 26% would have been hospitalized
 - 1. A cohort of 920 community-dwelling older adults followed for a year, nearly half of all patients experienced four or more institutional transfers
 - iii. 4% would have entered a skilled nursing facility
 - 1. 20% are readmitted to a hospital within 30 days
 - 2. 25% would have been hospitalized within a year

Additional references:

1. Levenson SA (ed). Medical Direction in Long-Term Care: A Guidebook for the Future. 2nd Edition, Carolina Academic Press, 1993.
2. Forciea, MA, Schwab, E, Raziano, D, Lavizzo-Mourey, R. Geriatric Secrets. 3rd edition, Hanley and Belfus, 2004.
3. Nace, DA. The Long-term Care Continuum: Programs, Services, Sites and Financing. Accessed 07-13-04; <https://cme.health.pitt.edu/articles/geriatrics/geriatricsMod1/longtermcare.pdf>