Chronic Diseases in the Elderly

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A Partnership of
Project ECHO, Sanford Center for Aging, and the Nevada Geriatric Education Consortium

The Nevada Geriatric Education Consortium. The Consortium is a partnership of the University of Nevada School of Medicine, Desert Meadows Area Health Education Center, and University of Nevada at Las Vegas. We are committed to improving the health care delivered to older adults by providing education, information, and resources to health care professionals and faculty.
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This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor as endorsed by, the BHPr, HRSA, DHHS or the U.S. Government.
Chronic Diseases in the Elderly

- Diabetes Mellitus 15-25%
- Hypertension 10-15%
- Coronary Artery Disease 10-14%
- Arthritis/DJD 10-13%
- Emphysema 5-7%
- Dementia 5-7%
- Depression/Anxiety 3-5%
- Cerebrovascular Disorders 3-5%
## A Century of Change

<table>
<thead>
<tr>
<th></th>
<th>1900</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy</td>
<td>47 years</td>
<td>75 years</td>
</tr>
<tr>
<td>Usual Place of Death</td>
<td>Home</td>
<td>Hospital</td>
</tr>
<tr>
<td>Most Medical Expenses</td>
<td>Paid by Family</td>
<td>Paid by Medicare</td>
</tr>
<tr>
<td>Disability before Death</td>
<td>Usually not much</td>
<td>2 years, on average</td>
</tr>
</tbody>
</table>

Field MJ, Cassel CK, eds. Approaching Death: Improving Care at the End of Life. Washington, DC: Institute of Medicine, Committee on Care at the End of Life, National Press, 1997
Americans’ Current Health Care Expenditures

Expenditures

Birth --- Life Span --- Death
## Change in the New Century

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 85 or Older</td>
<td>4,200,000</td>
<td>9,000,000</td>
</tr>
<tr>
<td>Long Term Care Costs–Medicaid</td>
<td>$137 Billion</td>
<td>$281 Billion</td>
</tr>
<tr>
<td>Americans with Chronic Conditions</td>
<td>125 million</td>
<td>175 million</td>
</tr>
<tr>
<td></td>
<td>81% with &gt; 1 chronic condition</td>
<td></td>
</tr>
</tbody>
</table>
Chronic Illness Among the Elderly

Non-fatal Chronic Illness

- Arthritis
- Hearing Loss
- Visual Impairment
Chronic Illness Among the Elderly

**Non-fatal Chronic Illness**

- Gradually worsen, but seldom pose a threat to life
- Contribute substantially to disability and health care costs
Chronic Illness Among the Elderly

Serious, Eventually Fatal Chronic Conditions

- Cancers
- Organ System Failures
- Dementia
- Strokes
### Chronic conditions are the leading cause of illness, disability, and death in Medicare beneficiaries.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Percent of Medicare beneficiaries with disease</th>
<th>Percent of total Medicare spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF</td>
<td>14%</td>
<td>43%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>18%</td>
<td>32%</td>
</tr>
</tbody>
</table>

T. G. Thompson, Secretary of HHS; 2004
Trajectories of Chronic Illness: Service Needs Across Time
Short Period of Evident Decline
Short Period of Evident Decline
Mostly Cancer
Long-Term Limitations with Intermittent Serious Episodes

![Graph showing function decline over time with intermittent serious episodes.](image-url)
Long-Term Limitations with Intermittent Serious Episodes
Mostly Heart Failure and Lung Failure
Prolonged Dwindling

Function (High to Low)

Time (Decline to Death)
Prolonged Dwindling
Mostly Dementia, Disabling Strokes, Frailty
Chronic Illness and Medicare

• 20% of Medicare beneficiaries
• Have 5 or more chronic conditions
• Account for over 2/3 of Medicare spending
• See 14 different doctors in a year
• Have almost 40 office visits

R. A. Berenson, MD, Senior Fellow, Urban Institute
<table>
<thead>
<tr>
<th>Number of Chronic Conditions</th>
<th>Percent Chance of Unnecessary Hospitalization in Medicare Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>8</td>
<td>27%</td>
</tr>
</tbody>
</table>

R. A. Berenson, MD, Senior Fellow, Urban Institute
<table>
<thead>
<tr>
<th>Target Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
</tr>
<tr>
<td>People diagnosed with a specific disease</td>
</tr>
<tr>
<td>CCM</td>
</tr>
<tr>
<td>People at high risk for costly adverse medical events and poor health outcomes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reliance on Evidence-Based Treatment Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td>CCM</td>
</tr>
<tr>
<td>Low to Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reliance on protocols and standardized approaches</th>
</tr>
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<tbody>
<tr>
<td>DM</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td>CCM</td>
</tr>
<tr>
<td>Low</td>
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</tbody>
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<table>
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<tr>
<th>Use of non-medical social support services</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td>CCM</td>
</tr>
<tr>
<td>High</td>
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Comprehensive Geriatric Assessment

Patient living alone
Involuntary weight loss in past three months
Increasing weakness in past three months
Worsening mobility in past three months
Memory complaints
Five or more chronic conditions
Six or more chronic medications
Three or more hospitalizations in past six months
Sanford Center Geriatric Clinic

WELLNESS
- Self assessment of health
- Psychosocial risk factors
- Behavioral risk factors
- Activities of Daily Living
- Instrumental Activities of Daily Living
- Assessment of Medical History
- Familial Risk Factors
- Psychological screening
- Cognitive screening
- Fall risk assessment
- Frailty screening and assessment

PHYSICAL HEALTH
- Geriatrician
- Geriatric Nurse Practitioner
- Further assessment needed
- Frailty clinic assessment
- Yes
- No

COGNITIVE HEALTH
- Neurologist
- Neuro Psychologist
- Further assessment needed
- Memory clinic assessment
- Yes
- No

PSYCHOSOCIAL
- Social Work
- Clinical Psychologist
- Further assessment needed
- Additional social work assessment
- Yes
- No

Personalized care plan developed by interdisciplinary team that includes direct input from client.

Presentation of findings by care navigator to client, family members and community care provider; includes recommendations for care plans and informational support for all care options.

Coordination with community care provider and appropriate community agency to facilitate implementation and follow up of personalized care plan.