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analysis to advance the health of vulnerable populations

A Methodology for Projecting a State's Long-Term Care Costs

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UMBC
AN HONORS UNIVERSITY IN MARYLAND

The Hilltop Institute was formerly the Center for Health Program Development and Management.

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The Hilltop Institute is a 60-person, multi-disciplinary applied research center at the University of Maryland, Baltimore County (UMBC). We are dedicated to improving the health and social outcomes of vulnerable populations. Hilltop conducts research, analysis, and evaluation on behalf of government agencies, foundations, and other non-profit organizations at the national, state, and local levels. We currently provide research and analysis for the Medicaid long-term care programs in Maryland, New Mexico, and New Jersey.

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Today's Presentation

- Report Background
- Population Projections
- National Trends and Implications
- Service Inventories
- Forecast Methodology
- Study Findings
- Conclusions

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Report Background

- The Maryland legislature required a report to plan LTC supply and demand under the Maryland Long-Term Care Planning Act of 2006 (HB 1342)

- Hilltop was awarded the contract by the Maryland Health Care Commission; George Mason University Center for Social Science Research was also a partner

- The report examined LTC needs and costs to the state for individuals 65+ and persons with disabilities

- Cost projections were developed for 2010, 2020, and 2030

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Population Projections

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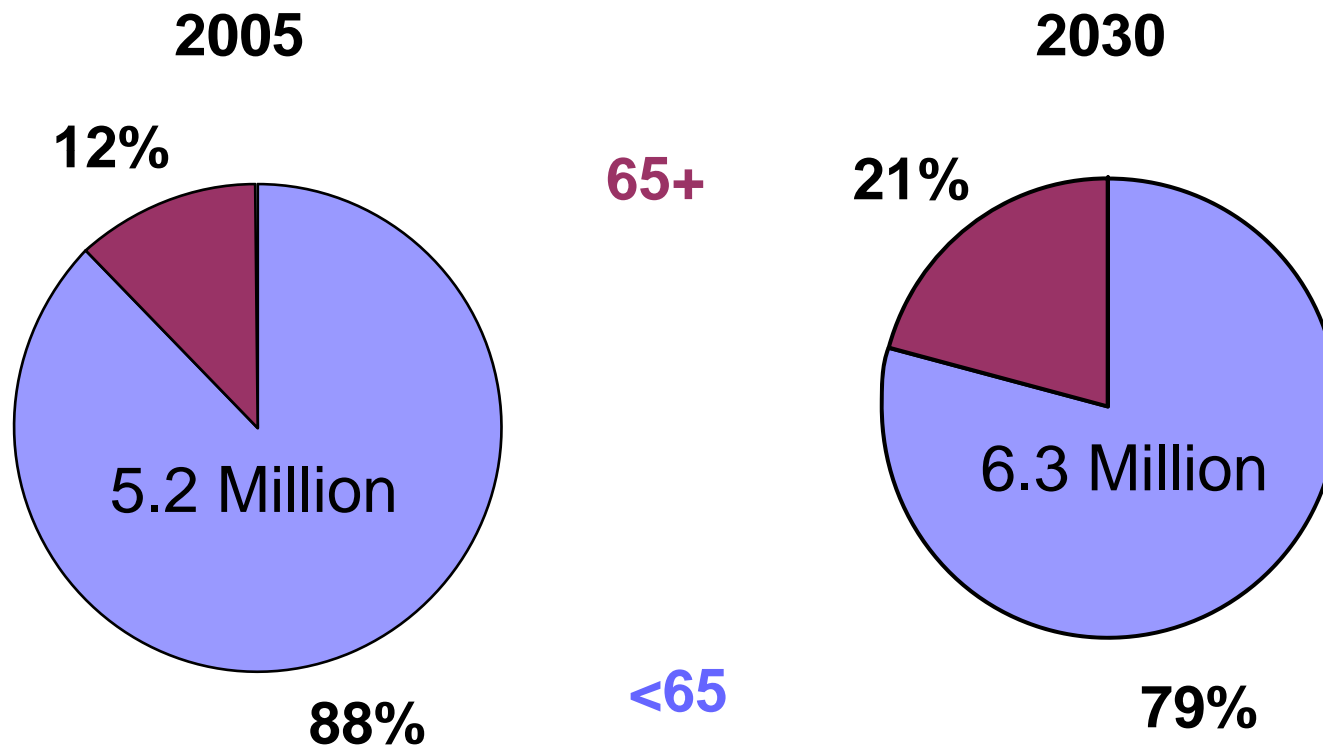# Population Projections for Maryland

- By 2030:
  - The number of Marylanders 65+ will more than double, from just under 600,000 in 2005 to 1.3 million
  - The number of persons aged 5-64 reporting disabilities will increase from 335,500 in 2000 to 385,000

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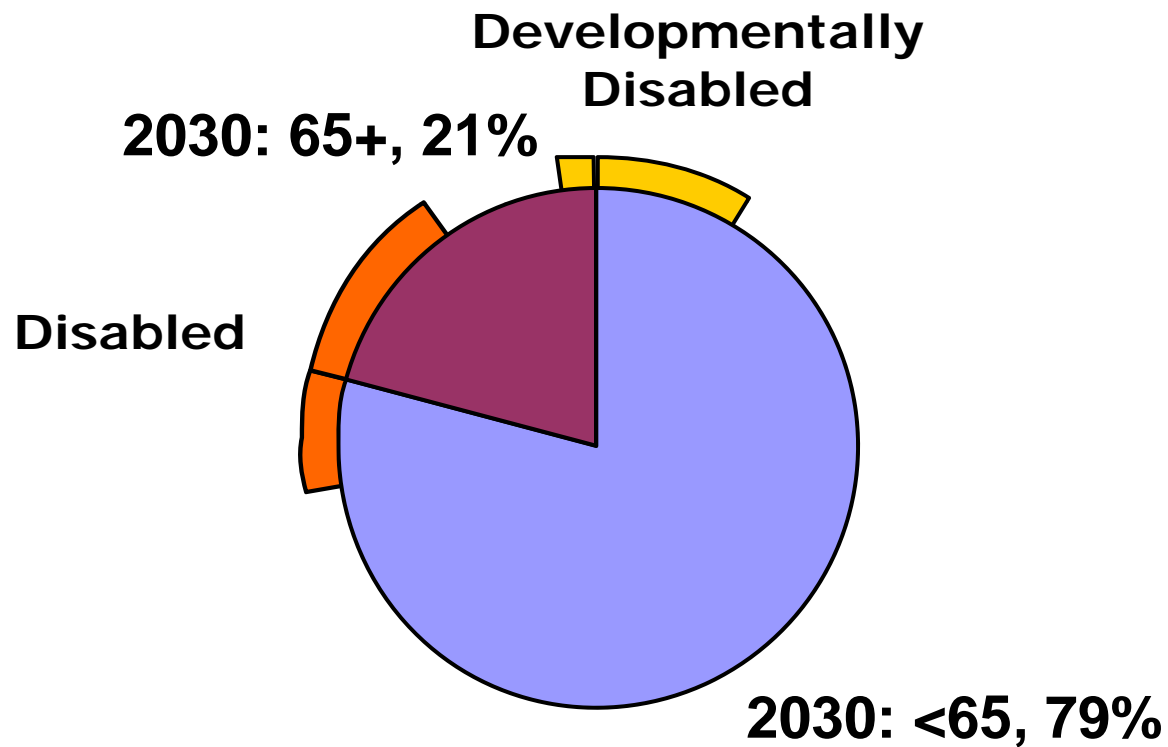# Projected Population Growth in Maryland by Age Group, 2005-2030
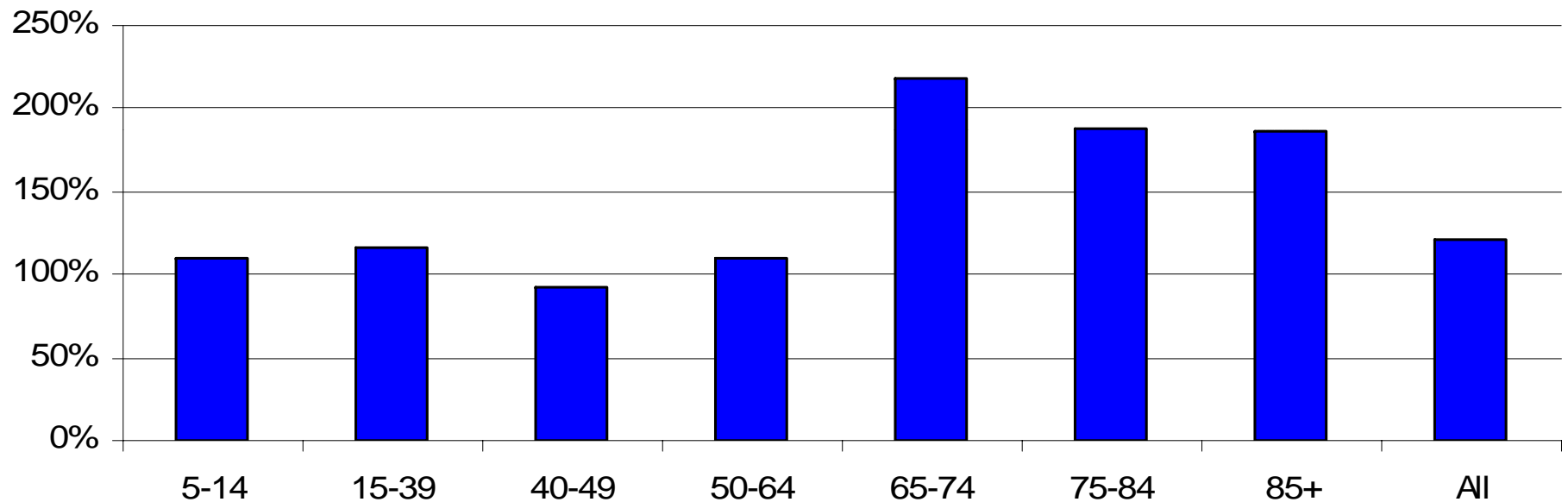
Census Data: Maryland's Population

2005

12%

65+

5.2 Million

<65

88%

2030

21%

6.3 Million

79%

Maryland Department of Planning Population Projections, 9/2006

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Subsets of the Population
May Need Long-Term Care

Developmentally
Disabled

2030: 65+, 21%

Disabled

2030: <65, 79%

2005 Population by age, Maryland Department of Planning Population Projections, 9/2006

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-9-

This Report Focuses on Three Population Groups
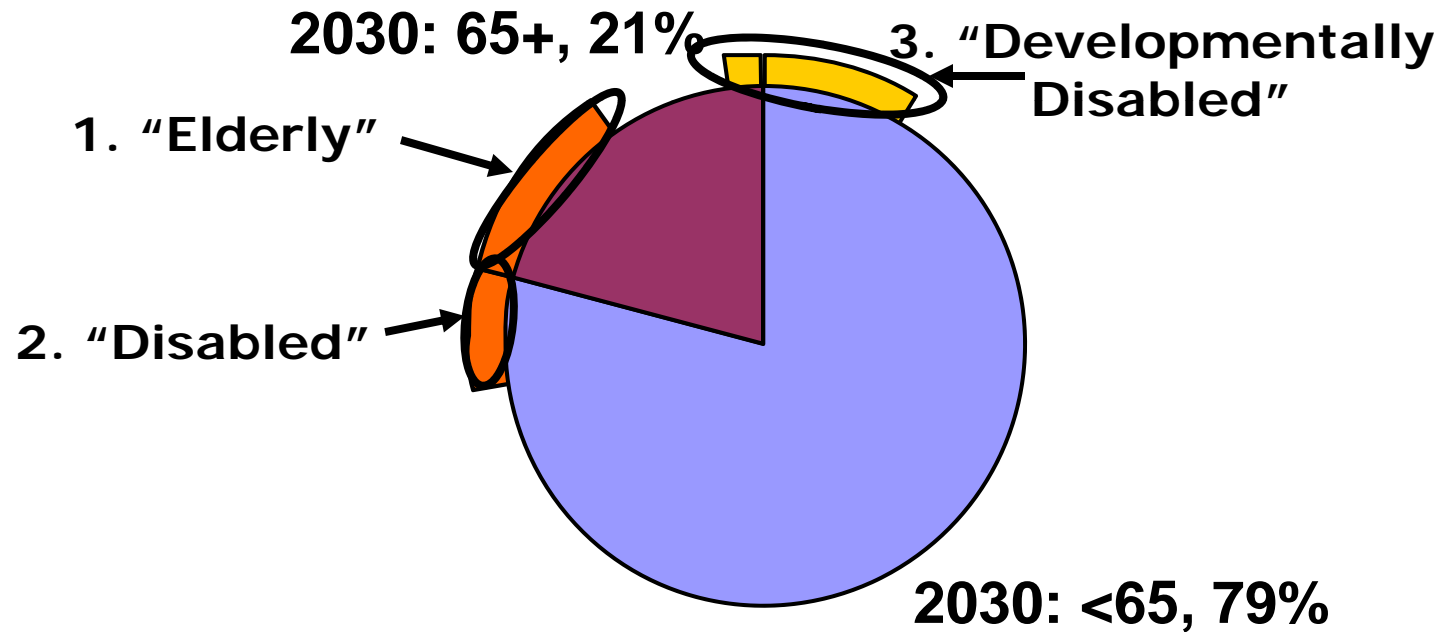
2030: 65+, 21%

3. "Developmentally Disabled"

1. "Elderly"

2. "Disabled"

2030: <65, 79%

2005 Population by age, Maryland Department of Planning Population Projections, 9/2006

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-10-

National Trends
and
Implications

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A Review of National Trends
Center for Social Science Research
George Mason University

- Trends in disability

- Family and informal sources of care

- Long-term care preferences

- Affordability of long-term care

- Workforce issues

- Technology in long-term care

Trends in Disability

- A continued decline in disability among older people is likely

- Decline will most likely be related to improvements in IADL impairments, not ADL impairments

- "Technology of self care" (i.e., assistive devices) is growing rapidly

Family and Informal Sources of Care

- Estimated value of informal care is $218 billion to $350 billion a year
- Family and informal care has been declining and is expected to continue to do so
- The demand for formal LTC services (both publicly and privately funded) will increase, especially for personal care

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Long-Term Care Preferences

- Demand for in-home and community services will continue to be strong

- Consumer-directed care will be popular

- Assisted living will grow as long as it is an affordable option

- Nursing homes will continue to be used by the sickest, those with no informal supports, and those who cannot afford community alternatives

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Affordability of Long-Term Care

- Many who will need LTC will have limited financial resources

- More will be eligible for Medicaid and spend-down may occur more rapidly

- LTC insurance may limit Medicaid eligibility for LTC, reducing state costs

- Education on LTC risks, insurance, and retirement planning will be important

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Workforce Issues

- LTC workforce development and retention will be an issue

- Market forces will lead to higher costs

- Cultural competency may be compromised by generation gap between older adults and younger LTC workers

Technology in Long-Term Care

- Trends in technological innovation and utilization must continue

- Don't expect a "technological fix" to significantly reduce the need for LTC

- Dissemination of information on technological innovation will be key to encouraging adoption

- Possible that technological improvements may lead to increased life expectancies and with that, other disease-related disabilities

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Implications: LTC Use by Those Aged 65+ Will Decrease by 2030

- The percentage needing care will diminish because they will be healthier
- The percentage who need state-funded care will likely decrease because:
    - They will be wealthier
    - More will have private LTC insurance
- Technological advances in Rx will reduce the need for LTC

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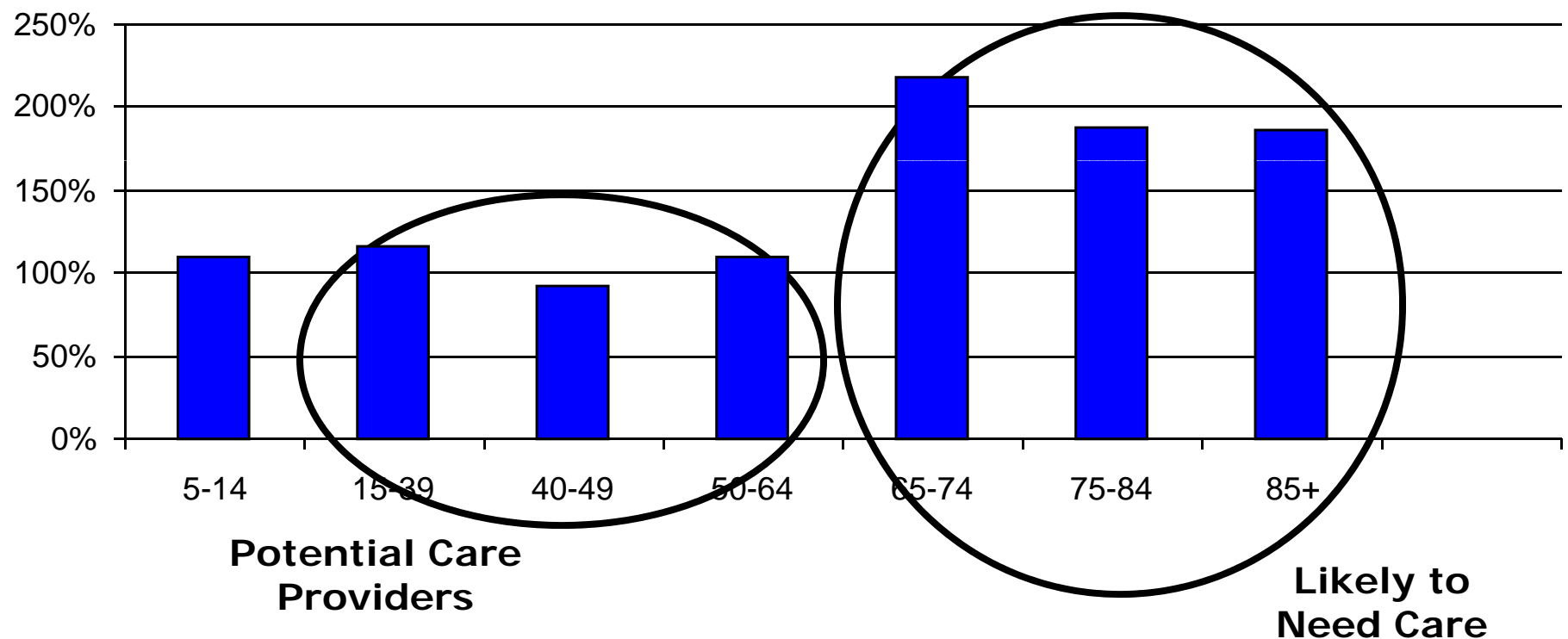# Implications: The Type of LTC Used Will Change by 2030

- The breakdown of system bias toward institutional care will shift people to the community

- More will choose the community because:

  - There will be more consumer direction

  - Programs such as Money Follows the Person encourage the shift

- The mix of community/home will not change

LTC Use by Persons with Disabilities Will Not Change

- For persons with physical and developmental disabilities:
  - The percentage using services will remain as it is today
  - They will use the same level of care as today

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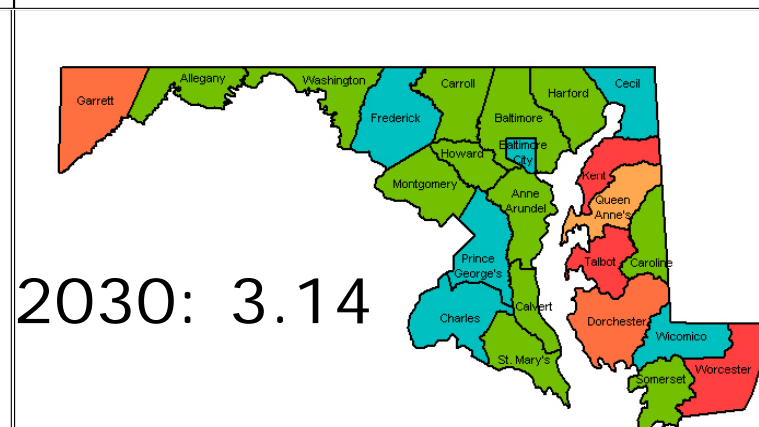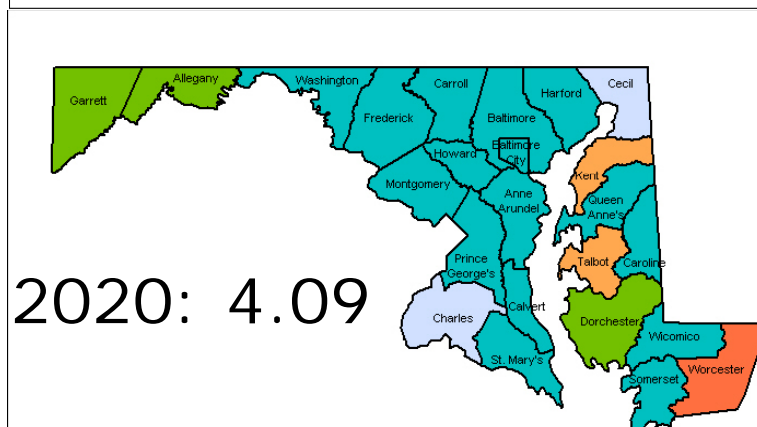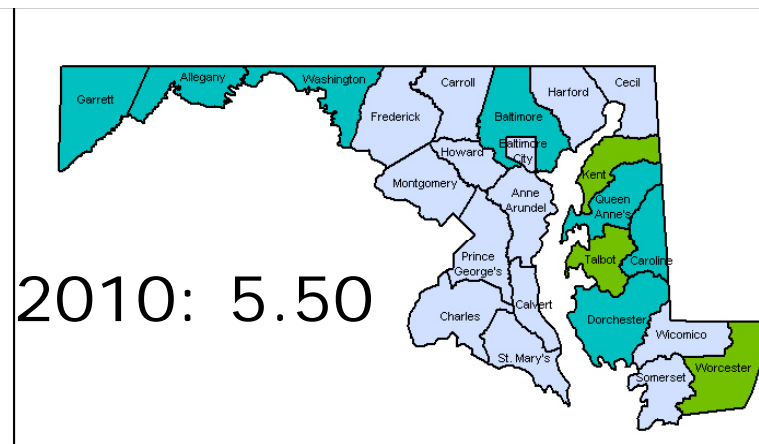# Implications of Different Growth Rates by Age Group, 2005-2030

Potential Care Providers

Likely to Need Care

Ratio of Providers to Need

2005 5.9:1

2030 3.1:1

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Age Dependency Ratio by County

Legend:
- 1.43-1.67 (red)
- 1.67-2.00 (orange)
- 2.00-2.50 (light orange)
- 2.50-3.33 (green)
- 3.33-5.00 (teal)
- 5.00-1000 (light blue)

2000: 5.94

2010: 5.50

2020: 4.09

2030: 3.14

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Service Inventories

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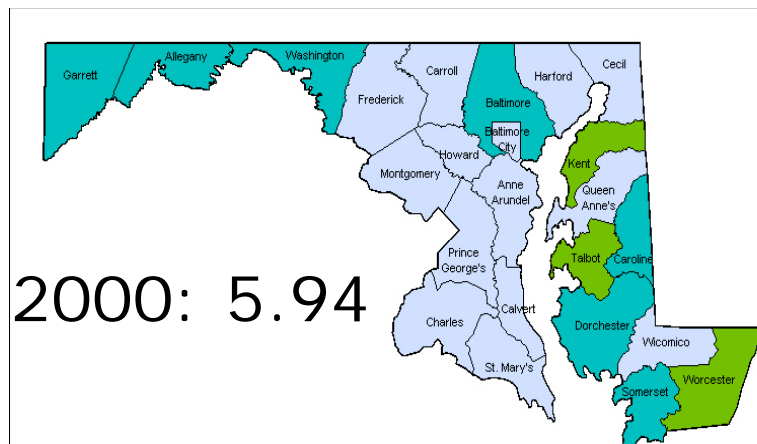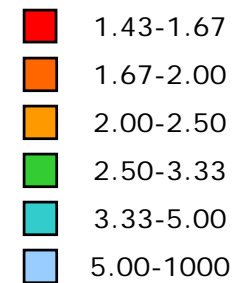
State and Local Service Inventories

- The inventory identified over 80 state and federally funded programs in Maryland that provide long-term supports and services to persons 65 years and older and persons with disabilities.

- Eligibility requirements vary greatly by program (e.g., differences in age requirements, financial eligibility, functional limitation requirements, etc.).

- In FY 2006, $2.3 billion in state and federal funds were expended on behalf of services to the target population.

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Organization of the State and Local Service Inventories

- Services and programs were divided into seven service categories:
    1. **In-home services** *(12)* – services provided in the individual's place of residence, excluding institutional settings (e.g., personal care, meals on wheels, day or night supervision, financial management)
    2. **Community-based services** *(17)* – services provided in the community, outside of the individual's residence (e.g., clinic services, medical day care, day habilitation, senior centers, rehabilitation services)
    3. **Services and supports for persons with developmental disabilities** (5)
    4. **Mental health services** (9)

Organization of the State and Local Service Inventories continued

- ## Additional service categories:

   5. Housing and residential supports *(7)* – includes independent living, board and care, adult foster care, continuing care retirement centers, among others

   6. Mobility and transportation *(5)* – includes low- or no-cost transportation services for the target population, such as medical transportation, non-medical transportation, volunteer transportation, and curb-to-curb mobility transportation

   7. Institutional *(2)* – includes nursing homes and chronic care hospitals

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County-Level Data Provided Further Context

- Population and disability projections
- Age dependency ratios and migration patterns
- Household income, employment
- Medicaid and SSI beneficiaries
- LTC facilities and services
- Housing shortages

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National Trends

- Health promotion
- Increasing personal responsibility
- Consumer-directed care
- Housing
- Rebalancing/diversion
- Long-term care workforce
- Care management

Forecast Methodology

The Economic Impact
of Long-Term Care

- Historical cost data on utilization and costs trended forward
- Incorporated estimation factors specific to each service for projecting future costs
- Projected costs: Number of Users x Units of Service x Expected Cost/Unit
- Total costs projected to increase threefold from 2005-2030 (from $1.99 billion to $6.06 billion)
- The work incorporated "future changes" from the George Mason researcher, not simply status quo paradigms of need and service

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For Each Group, for Each Long-Term Care Service ...

- Number of people x percent using = persons served

- Persons served x units used by each person = units (bed-days, PC hours)
  - (bed-days/365 = NH Beds)
  - PC Hours/2000 = Personal Care FTEs

- Units x unit cost = Total Dollars

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For Each of 57 Long-Term Care Services…

Population x % Using x Units/User x $/Unit = Expenditures

Services with historical data: 2001-2006

Each factor, for each service, by each of seven age groupings, is projected separately based on trends in the data with adjustments derived from the literature review by GMU
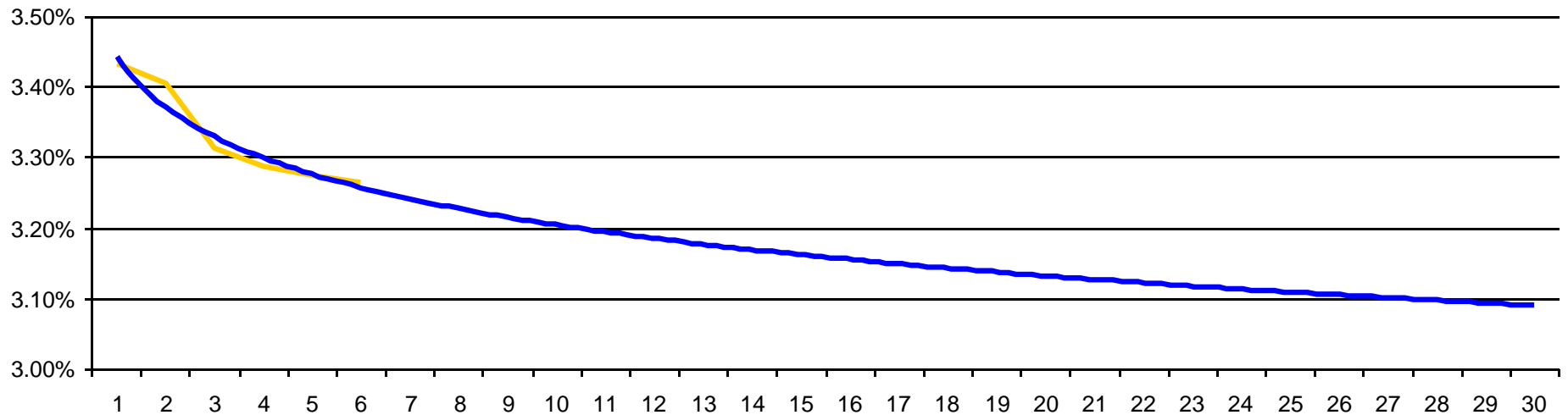
Services with single-year data

Population 5-64 and 65+ growth
% Using and Units/User constant
$/Unit using BLS CPI

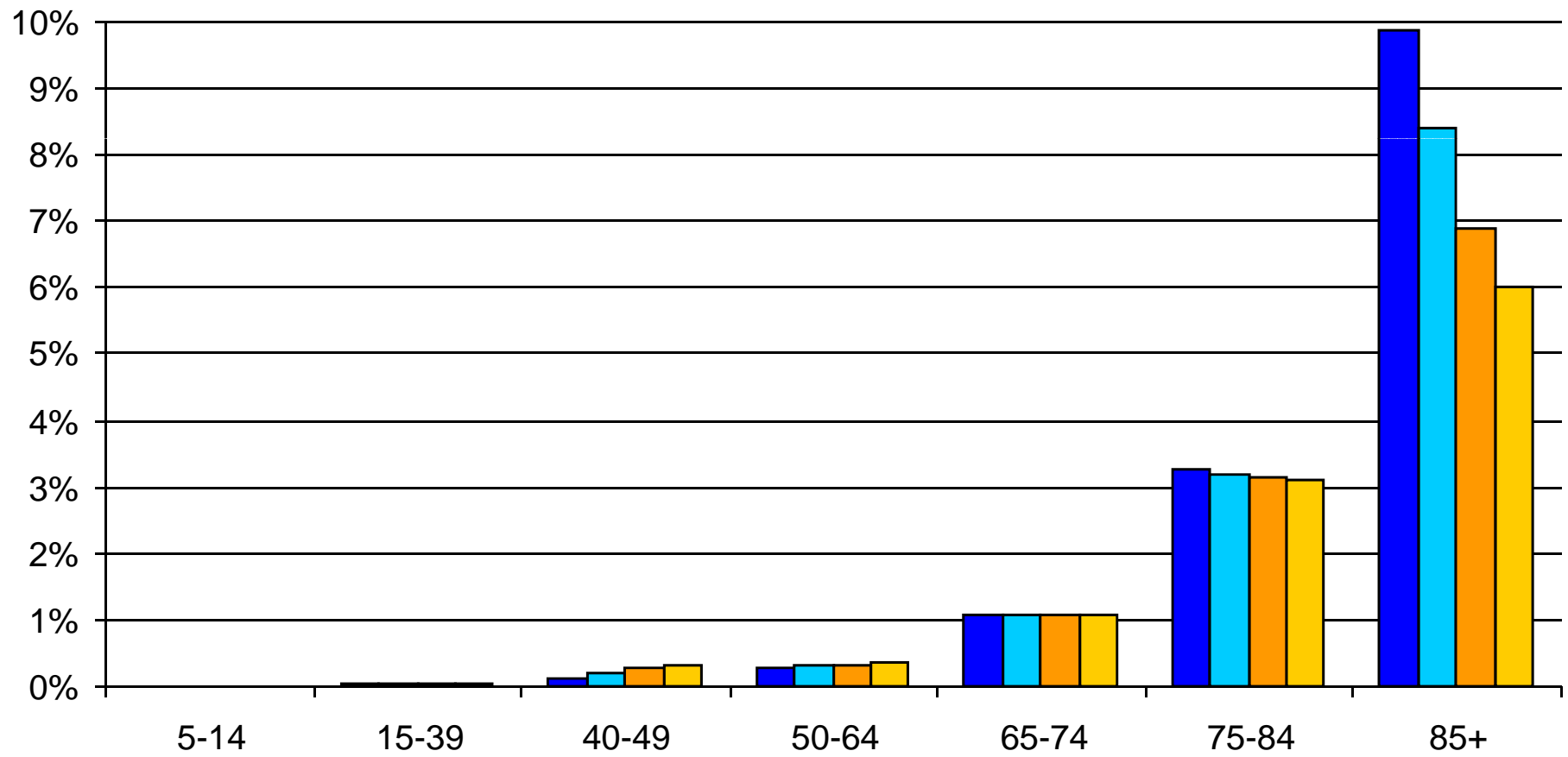# Projected Population by Age Group Maryland – 2005, 2010, 2020, 2030
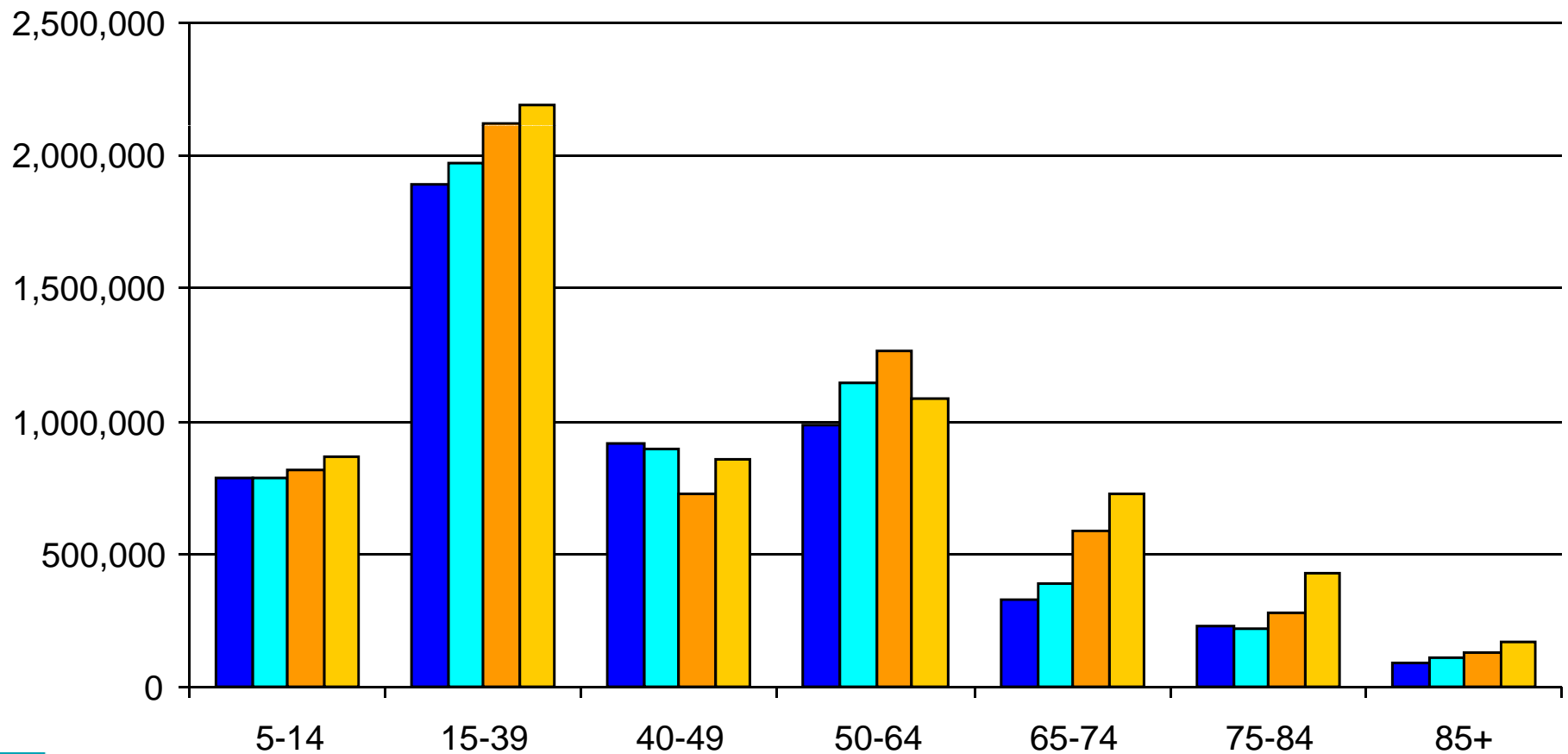
Percentage of 75-84 Age Group
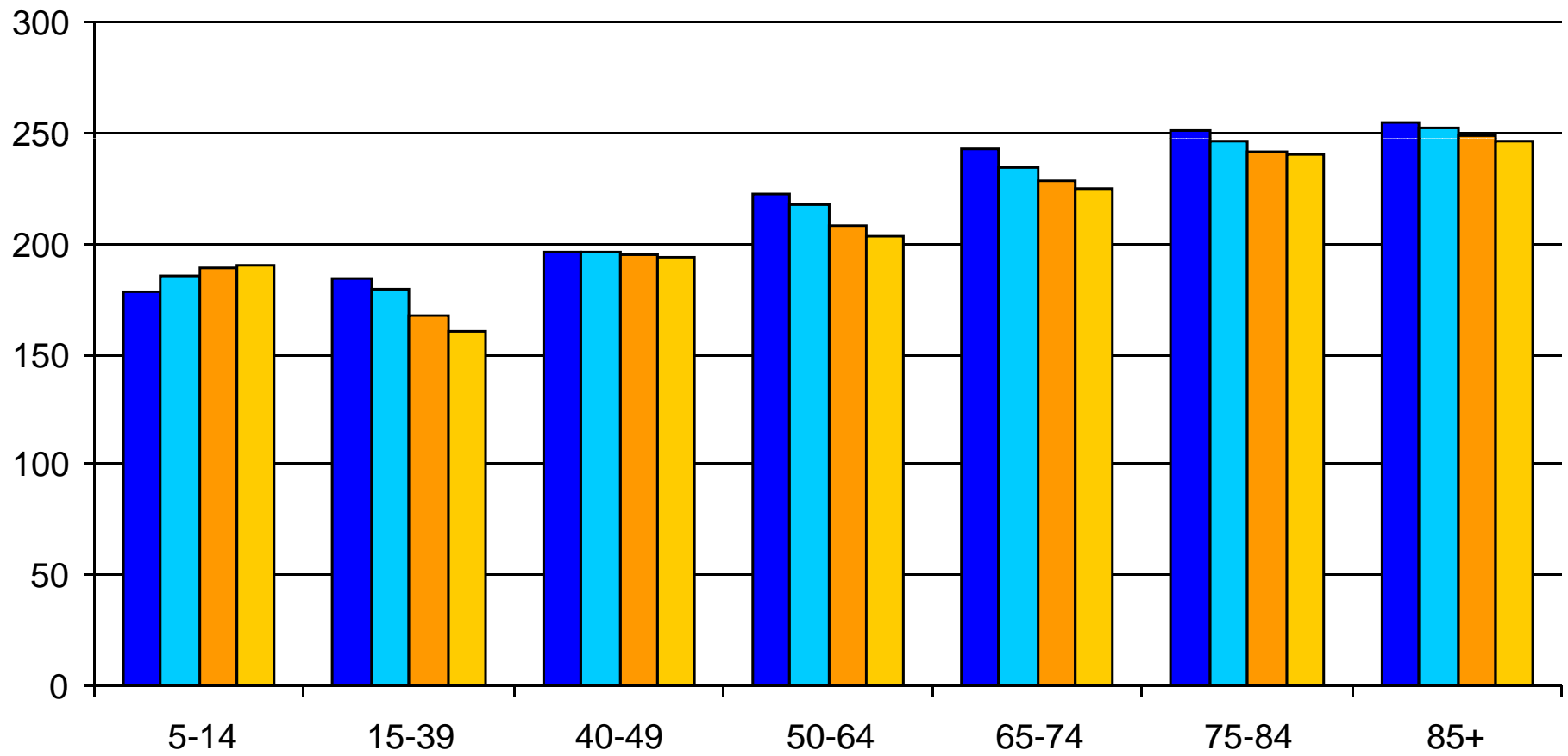# Using Nursing Facilities in Maryland

1 is 2001, 30 is 2030

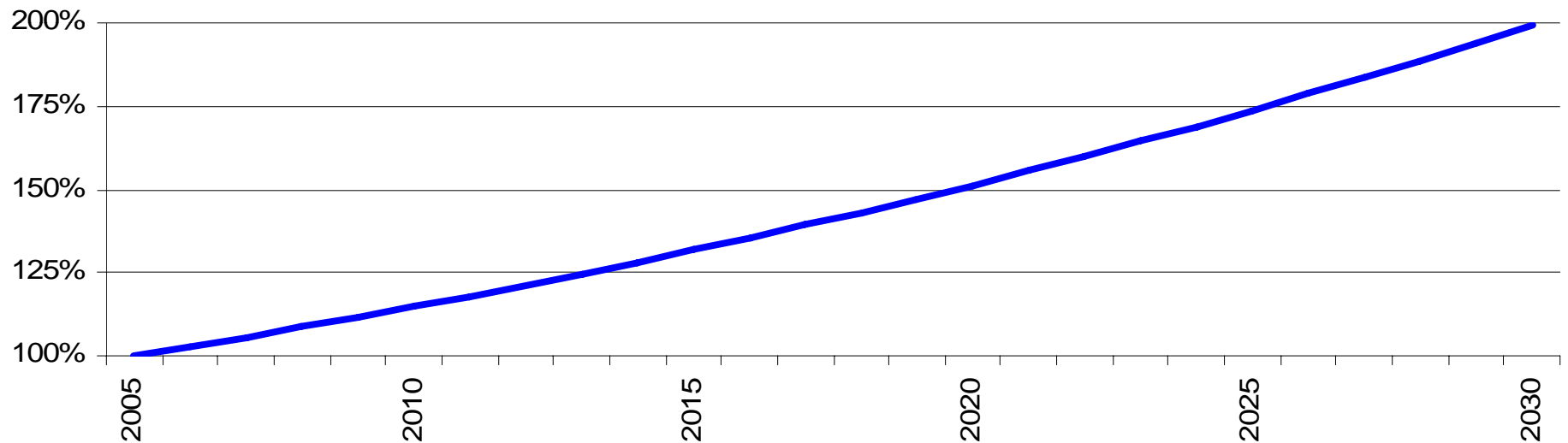The Hilltop Institute

-35-

Percentage of Maryland Population Using Nursing Facilities by Age Group 2005, 2010, 2020, 2030

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Maryland Nursing Facility Days/User by Age Group – 2005, 2010, 2020, 2030
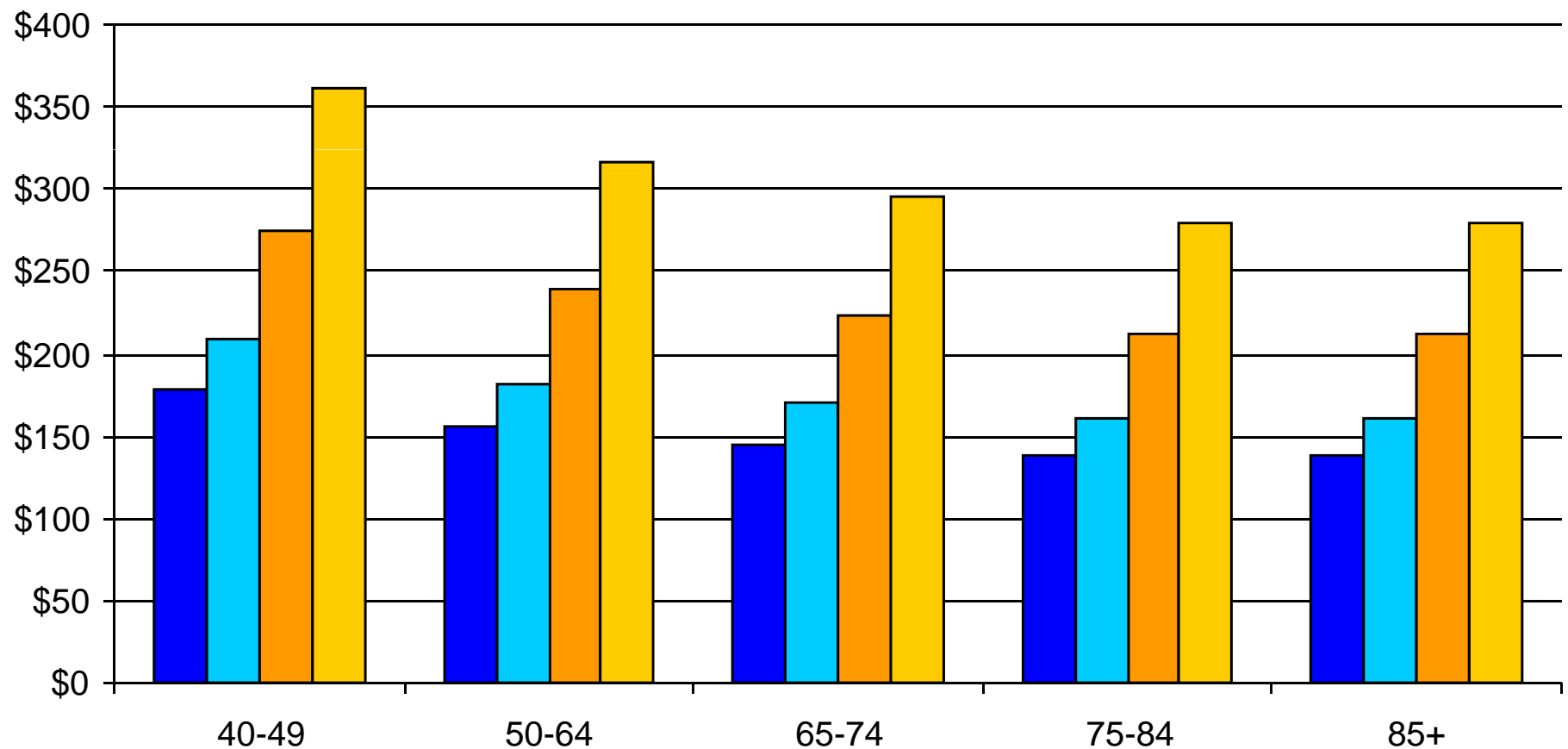
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Medical Care Consumer Price Index to Trend Costs

Source: Bureau of Labor Statistics
Area: Washington-Baltimore, DC-MD-VA-WV
Item: Medical Care

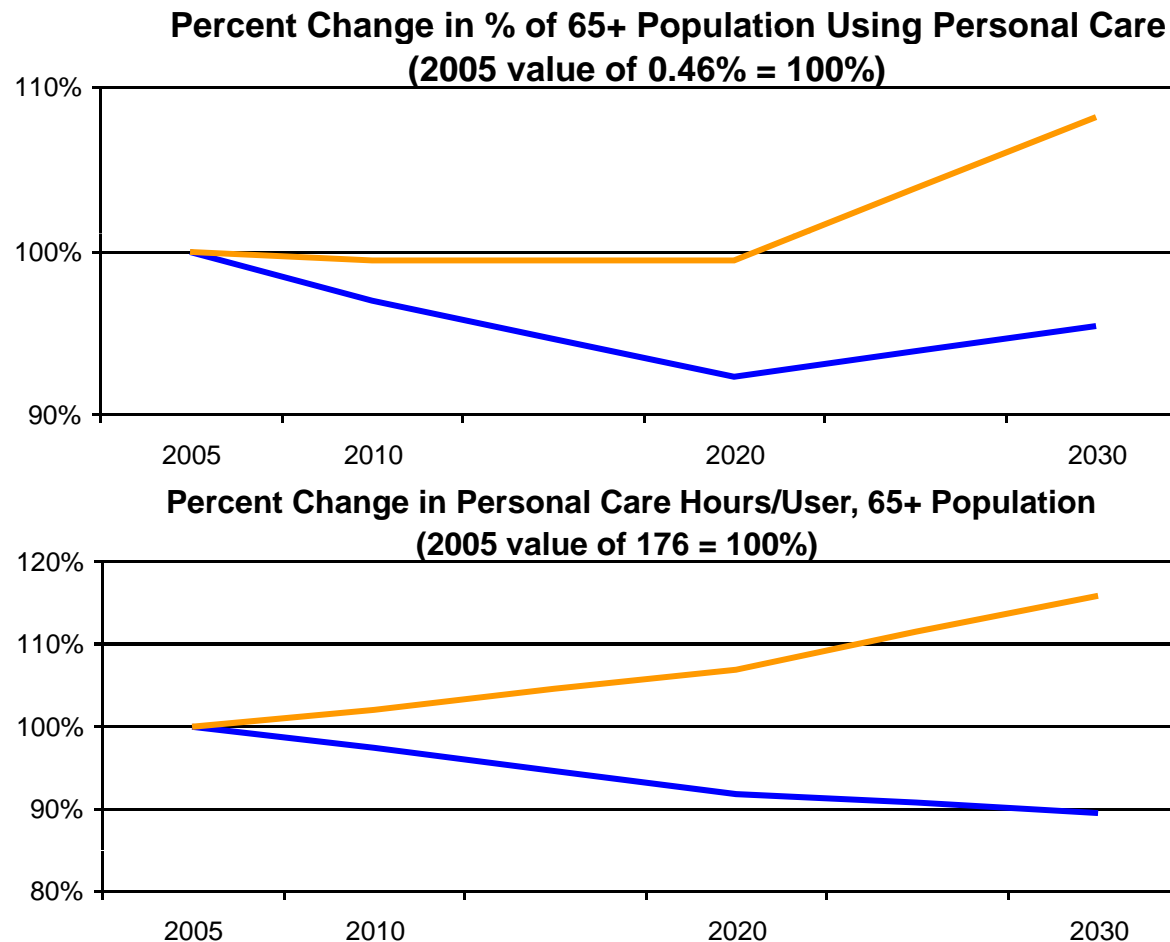The Hilltop Institute

-38-

Cost/NF Day by Age Group
Maryland – 2005, 2010, 2020, 2030

Adjustments to Historical Trend
Center for Social Science Research
George Mason University

**Percent Change in % of 65+ Population Using Personal Care
(2005 value of 0.46% = 100%)**

**Percent Change in Personal Care Hours/User, 65+ Population
(2005 value of 176 = 100%)**

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Maryland Total Long-Term Care Spending – 2005, 2010, 2020, 2030

	2005	2010	2020	2030	'05-'30 Change
Institutional	$909.4	$1,116.9	$1,507.7	$2,209.7	143%
In-Home	$94.5	$139.3	$240.0	$416.0	340%
Community	$207.3	$256.9	$389.7	$600.6	190%
Housing/Residential	$7.9	$10.2	$18.1	$32.2	309%
Mobility/Transportation	$53.7	$65.6	$92.1	$128.4	139%
Mental Health	$132.6	$159.1	$228.8	$324.9	145%
Developmental Disabilities	$583.0	$899.5	$1,493.3	$2,352.3	303%
Total	**$1,988.4**	**$2,647.5**	**$3,969.7**	**$6,064.1**	**205%**

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Distribution of State Costs for LTC by Service Category

2005

29%
46%
7%
3%
1%
10%
5%

2030

39%
36%
5%
2%
1%
10%
7%

■ Institutional	■ In-Home	□ Community
□ Housing/Residential	■ Mobility Transportation	■ Mental Health
■ Developmental Disabilities		

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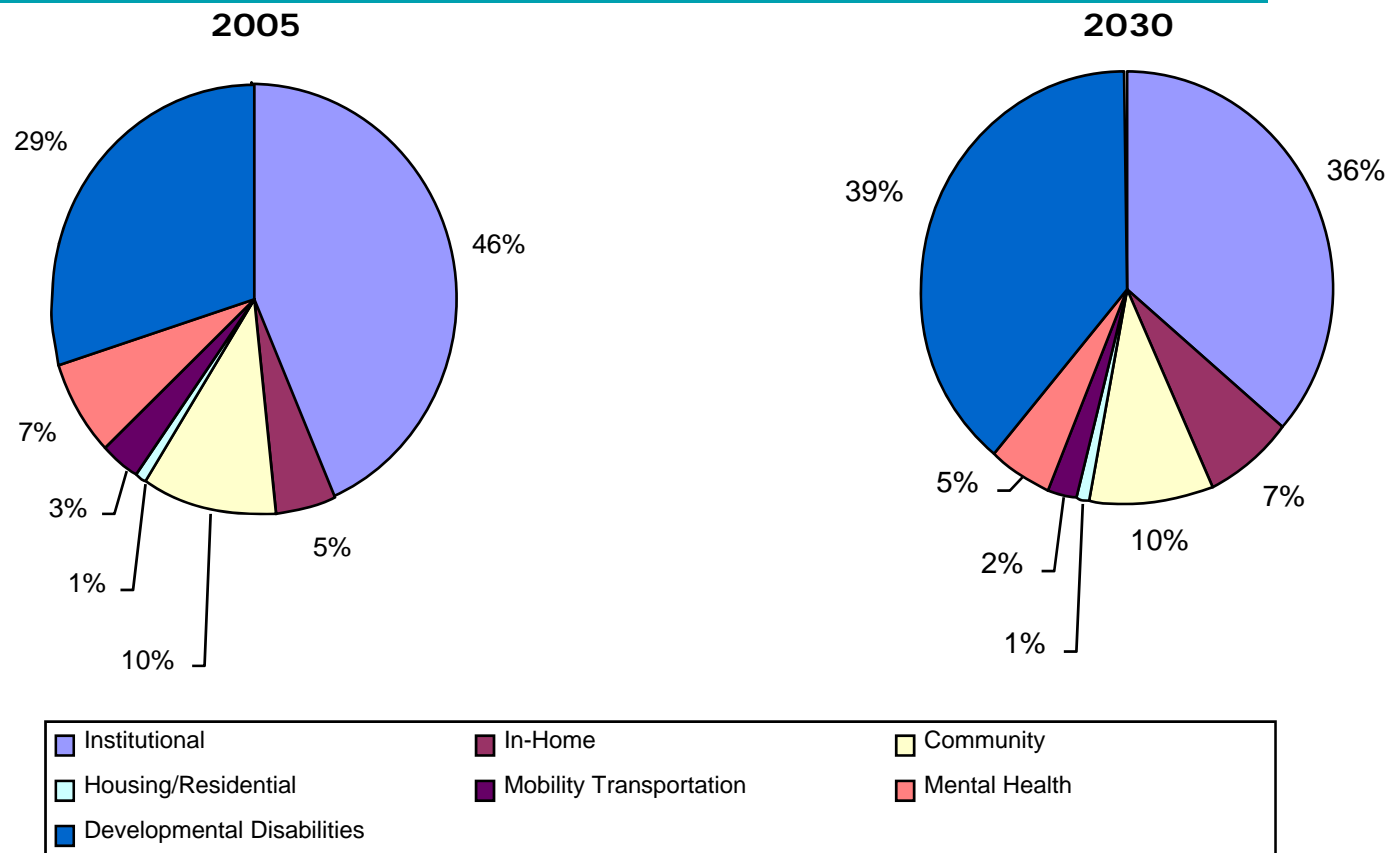
Variance Analysis
Long-Term Care Spending in Maryland

	2005	Variance				2030
		Population Growth	Percent Using	Units/ User	$/Unit	
Institutional	$909.4	$283.7	$55.5	($83.5)	$1,044.5	$2,209.7
In-Home	$94.5	$42.3	$117.0	$16.8	$145.5	$416.0
Community	$207.3	$85.7	$53.4	($15.7)	$270.0	$600.6
Housing/Residential	$7.9	$3.4	$8.2	($0.0)	$12.7	$32.2
Mobility/Transportation	$53.7	$16.7	($2.8)	($3.5)	$64.3	$128.4
Mental Health	$132.6	$41.4	$4.0	$1.2	$145.7	$324.9
Developmental Disabilities	$583.0	$247.5	$375.1	$353.1	$793.6	$2,352.3
Total	$1,988.3	$720.6	$610.3	$268.4	$2,476.3	$6,064.1
% of Total Change		18%	15%	7%	61%	

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Conclusions

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Guidelines to Facilitate Change

- Balance institutional and community care

- Encourage personal and societal responsibility

- Encourage private sector involvement

- Promote cooperation and collaboration

- Encourage identification of specific goals for systemic change

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For the report, go to
http://www.hilltopinstitute.org/publications/ltcPlanning.cfm

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