

*The Future of Seniors,
Services, and the Buildings
They Will Live In...*

*32nd Annual MN Health Care Engineers
Association Fall Program*

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Care Providers of Minnesota*

Why is this topic important?

⊕ Demographics

- ⊕ Aging Boom

- ⊕ Aged vs. Workforce & Tax Revenues

⊕ Expectations and Preferences

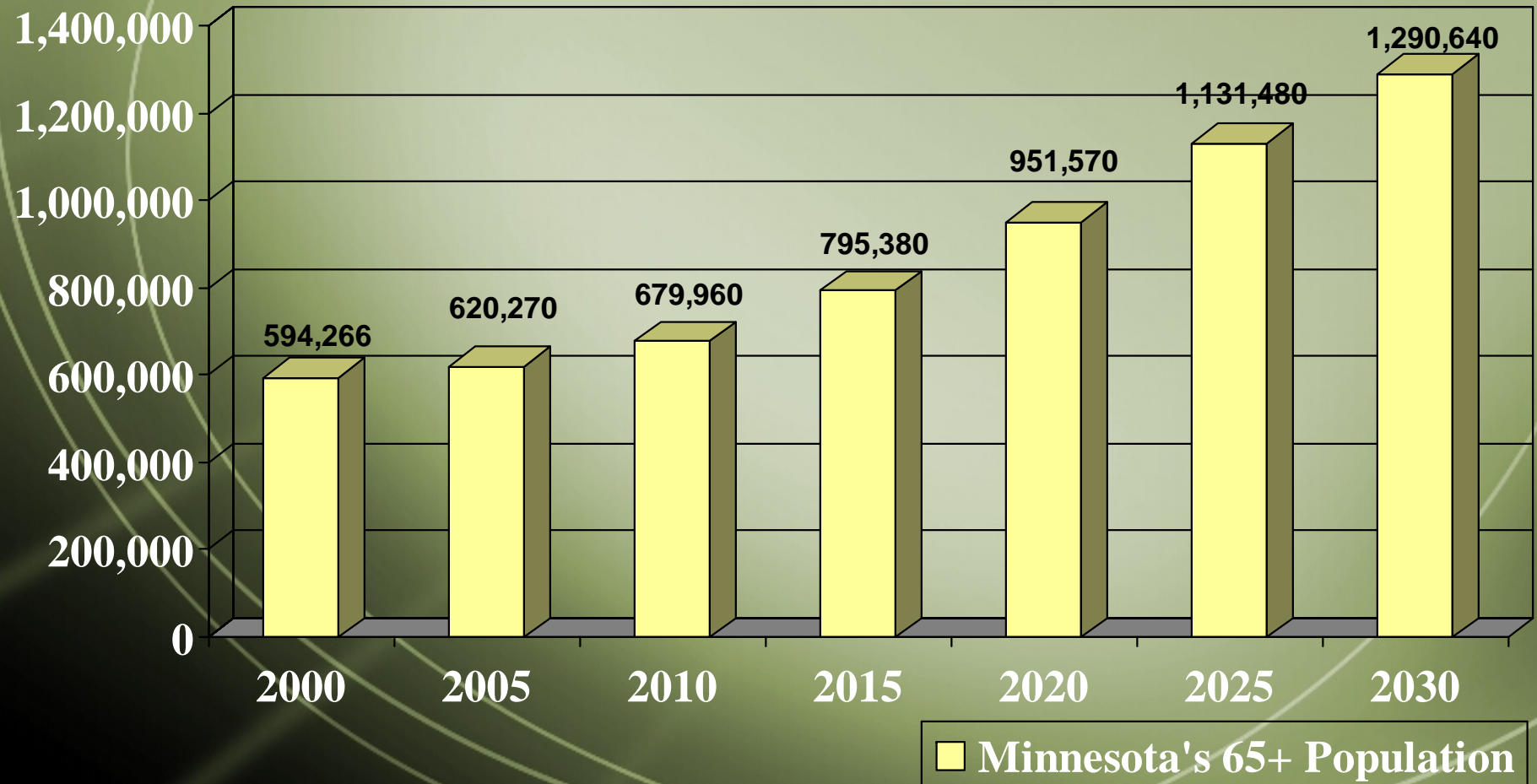
- ⊕ Baby Boomers

⊕ Planning

- ⊕ Building (or remodeling) and Financing the Right building/housing, in the Right location, with the Right health care services

Minnesota's Senior Population

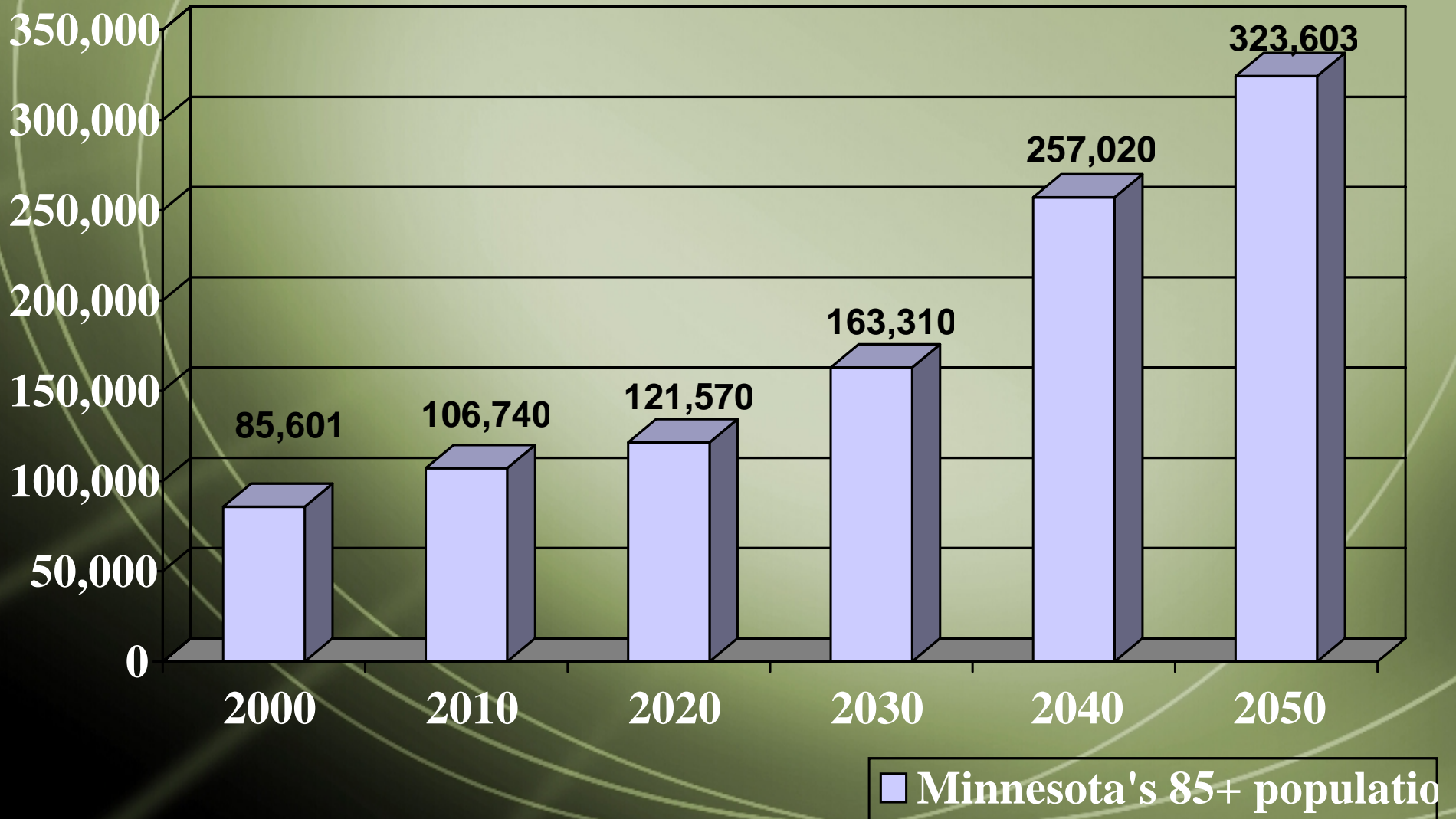
65+



Source: State Demographer's Office, DHS Aging Division, 2003

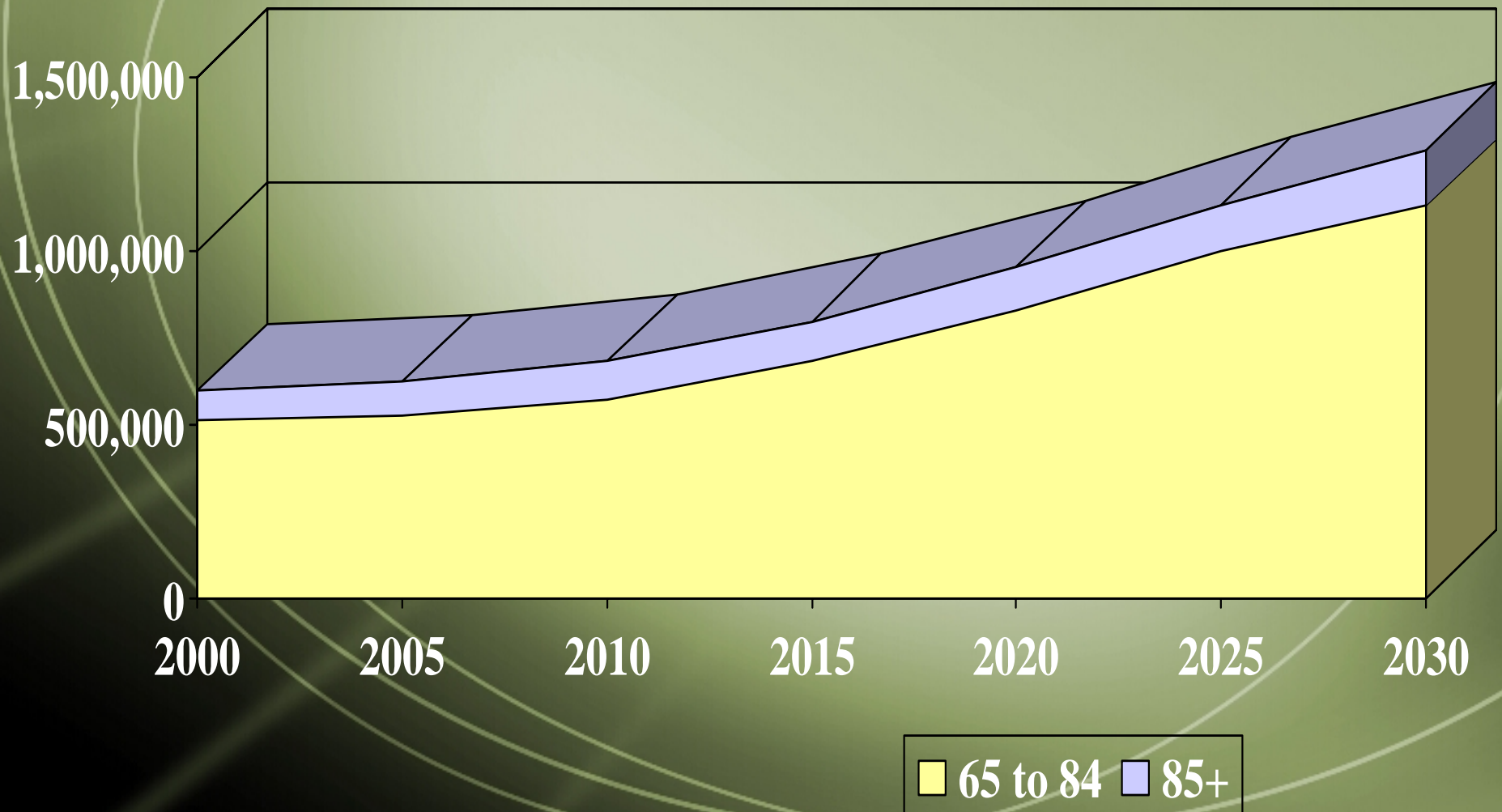
Minnesota's Senior Population

85+



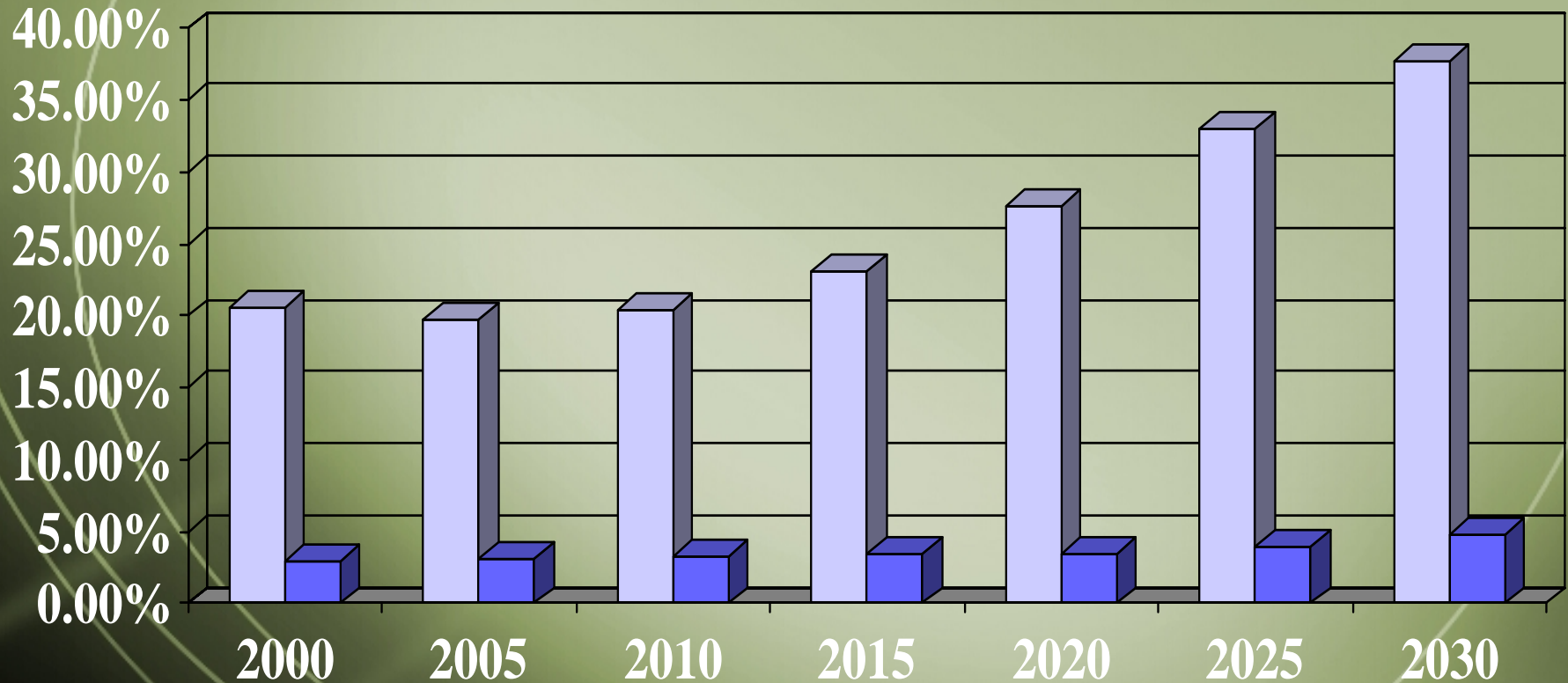
Source: State Demographer's Office, DHS Aging Division, 2003

Minnesota's Senior Population Ages 65 to 84 and 85+



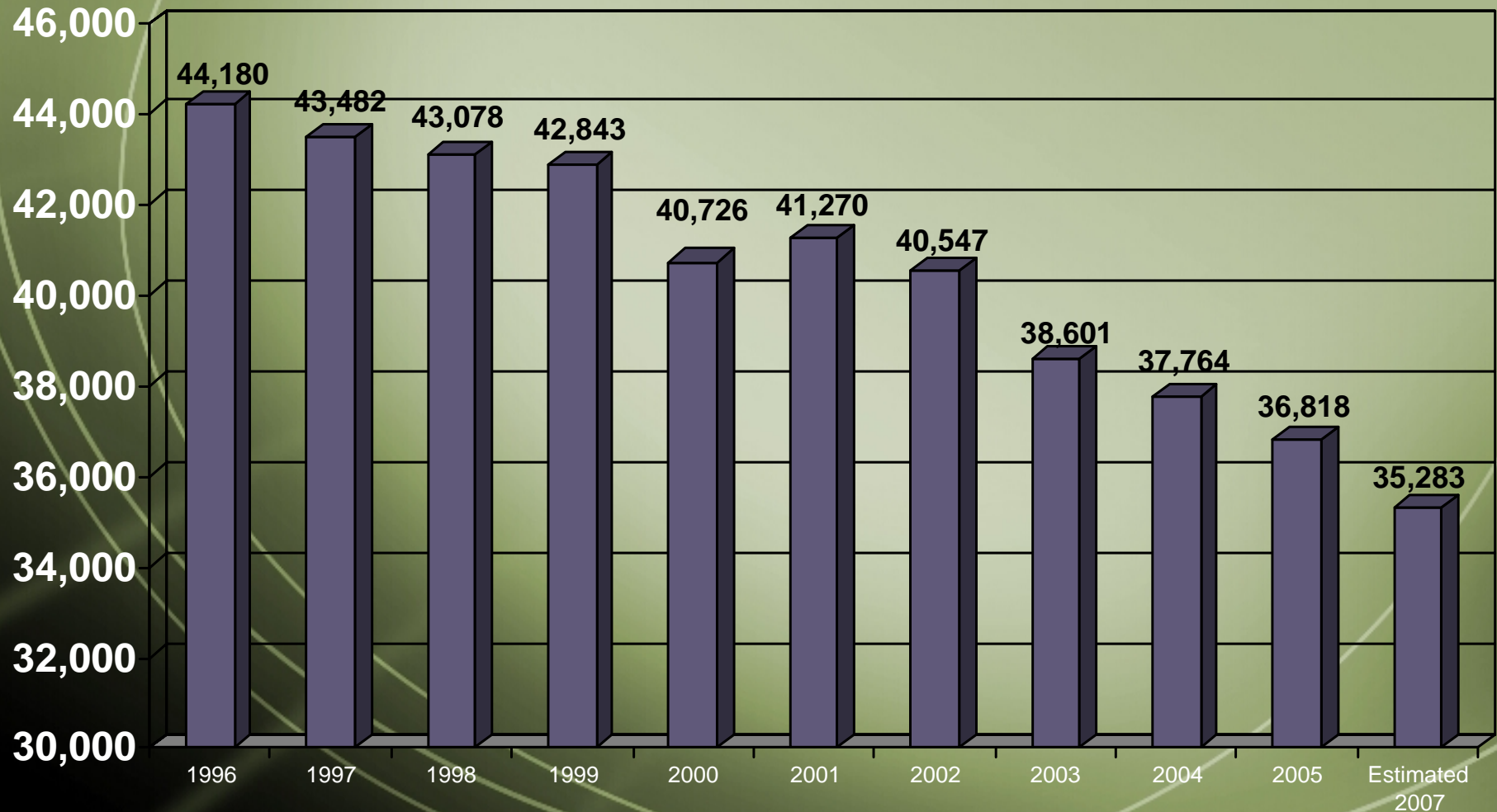
Source: Population Projections from the State of Minnesota Demographer

Minnesota's Senior Population Ages 65 to 84 and 85+



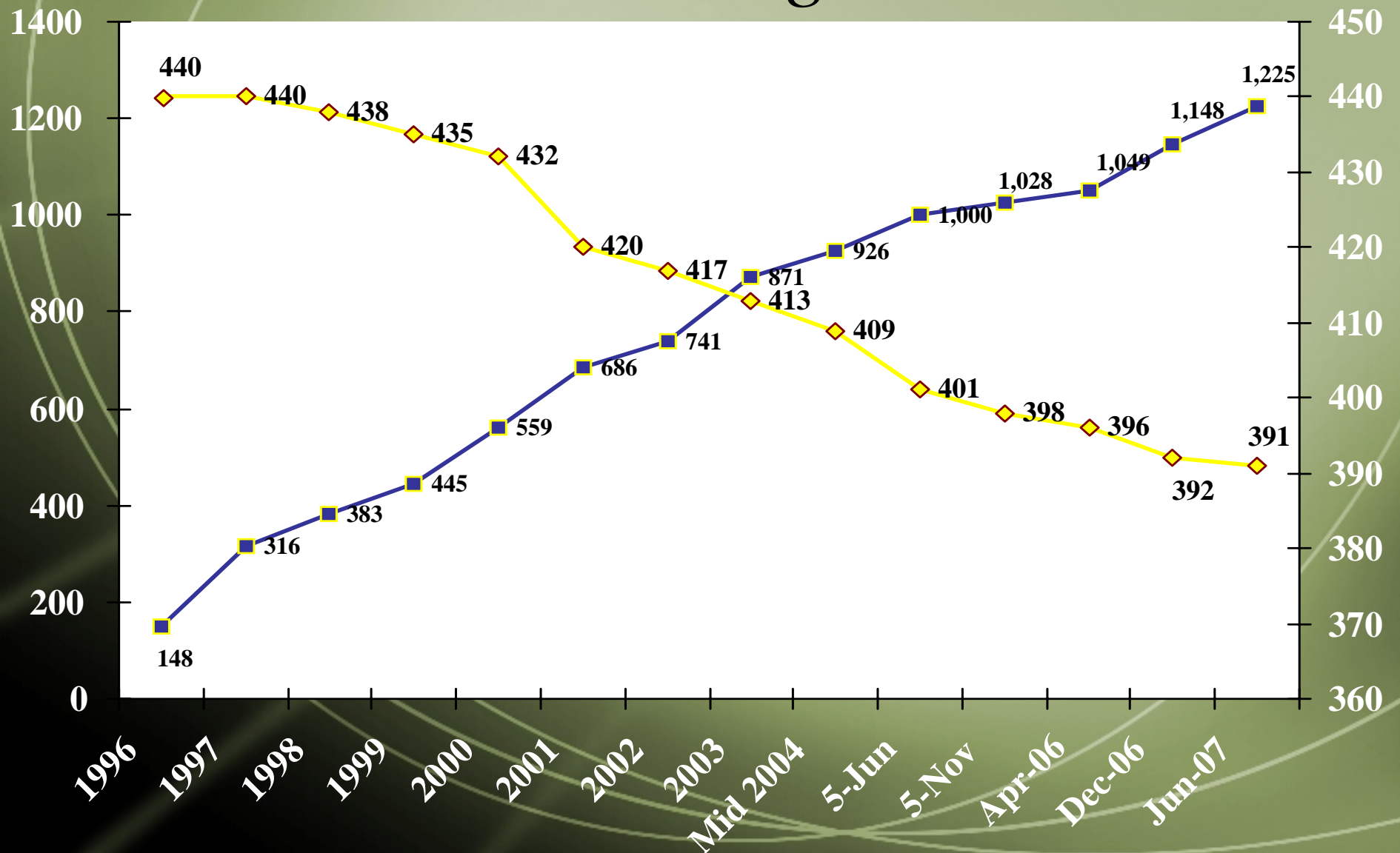
■ Percent 65 Plus to Population 20 to 64
■ Percent 85 Plus to Population 20 to 64

20% Decline in Minnesota's Nursing Home Beds (1996-2007)

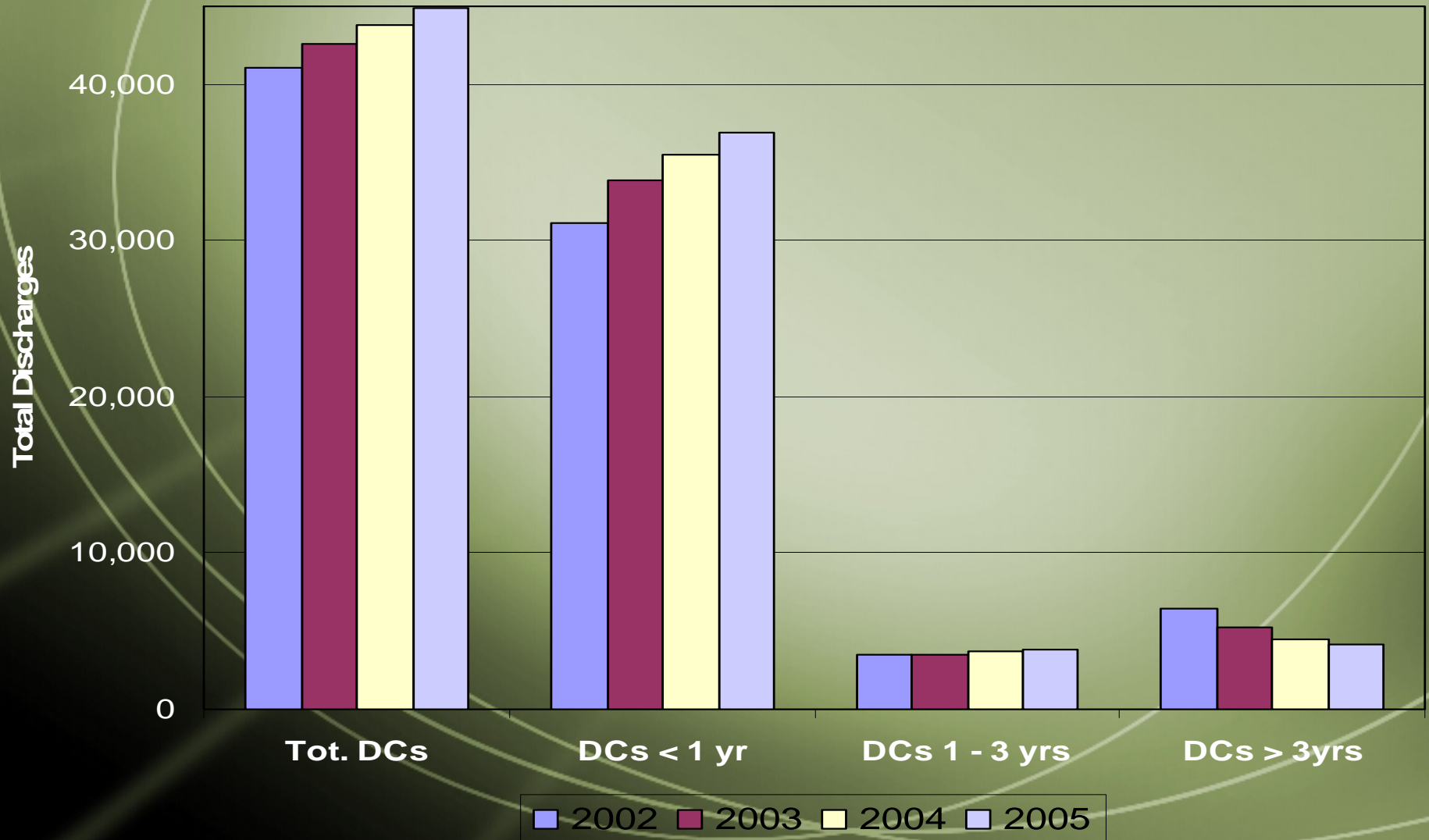


Source: Minnesota Department of Human Services Cost Report and MDH Licensure Data

Nursing Homes and Housing with Services



The Use of Today's Nursing Homes



The Use of Today's Nursing Homes

	Actual 2005		2030 Demand Model Estimates		% Change 2005 to 2030
Short Stay 0 to 90 days	3,148	16%	10,990	39%	249%
Moderate Stay 91 to 365 days	2,990	8%	7,330	26%	145%
Long Stay > 1 year	29,400	76%	9,866	35%	-66%
Total Beds	35,538		28,186		-21%

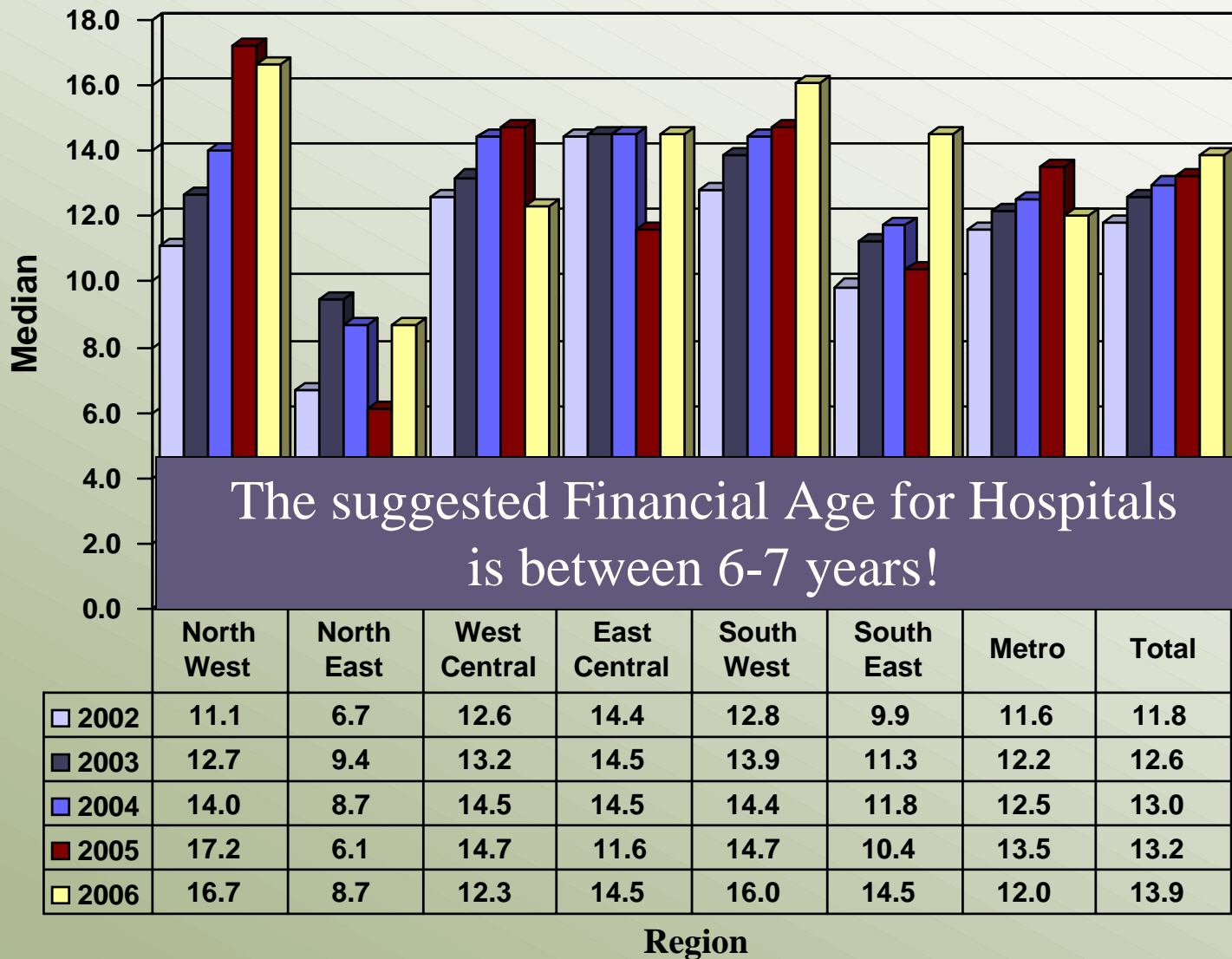
The residents that stay one year or less will probably represent about 85% to 90% of all resident admissions by 2030. These will be residents transitioning from acute care to home.

The Demand for Assisted Living and Housing with Services

Region	Incremental AL Demand by 2030		Units/1,000 65+
	Units	Percent of Total	
Metro	8,765	52.6	13.9
East Central	2,833	17.0	14.1
Northeast	1,062		11.7
Northwest	514		11.4
West Central	781		11.2
Southwest	669		8.4
Southeast	2,025	12.2	11.6
Statewide	16,648	100.0%	12.9

Compared to a
projected loss of
7,352 Nursing
Home Beds

Average Financial Age of MN Nursing Homes



The suggested Financial Age for Hospitals is between 6-7 years!

Average Financial Age = $\frac{\text{Accumulated Depreciation}}{\text{Annual Depreciation Expense}}$

Estimates the number of years of depreciation that have already been realized for a facility

Expectations and “Demands”

- ⊕ Baby Boomers and Beyond

- ⊕ “Nursing Homes”

 - ⊕ Private Rooms

 - ⊕ Private Bathrooms with accessible showers

 - ⊕ Smaller Neighborhoods/Smaller Buildings

 - ⊕ Cooking nearby

 - ⊕ Support for Universal Worker concept

 - ⊕ More Natural Light

 - ⊕ Larger rehab and exercise spaces

 - ⊕ More Gardens and Patios – More Nature

Expectations and “Demands”

- ⊕ Baby Boomers and Beyond

- ⊕ “Nursing Homes”

 - ⊕ More wired for everything (wireless)

 - ⊕ Less Institutional

 - ⊕ More specialized targeted audiences

 - ⊕ Built-in mobility devices (ceiling mounted lifts)

 - ⊕ No Nursing Stations

 - ⊕ Decentralized laundry (universal workers)

 - ⊕ No med carts (meds stored in private rooms)

 - ⊕ “Hub” for community senior health services
(attached clinics, dental, assisted living, etc.)

Expectations and “Demands”

⊕ Baby Boomers and Beyond

⊕ “Nursing Homes”

⊕ Household Models (Green House Model)

⊕ The household model consists of self-contained living areas with 25 or fewer residents who have their own full kitchen, living room, and dining room. Staff members work in cross-functional,

self-led work teams. The hierarchical organizational structure is "flattened" through the elimination of traditional departments



Expectations and “Demands”

⊕ Baby Boomers and Beyond

⊕ “Nursing Homes”

⊕ Household Models



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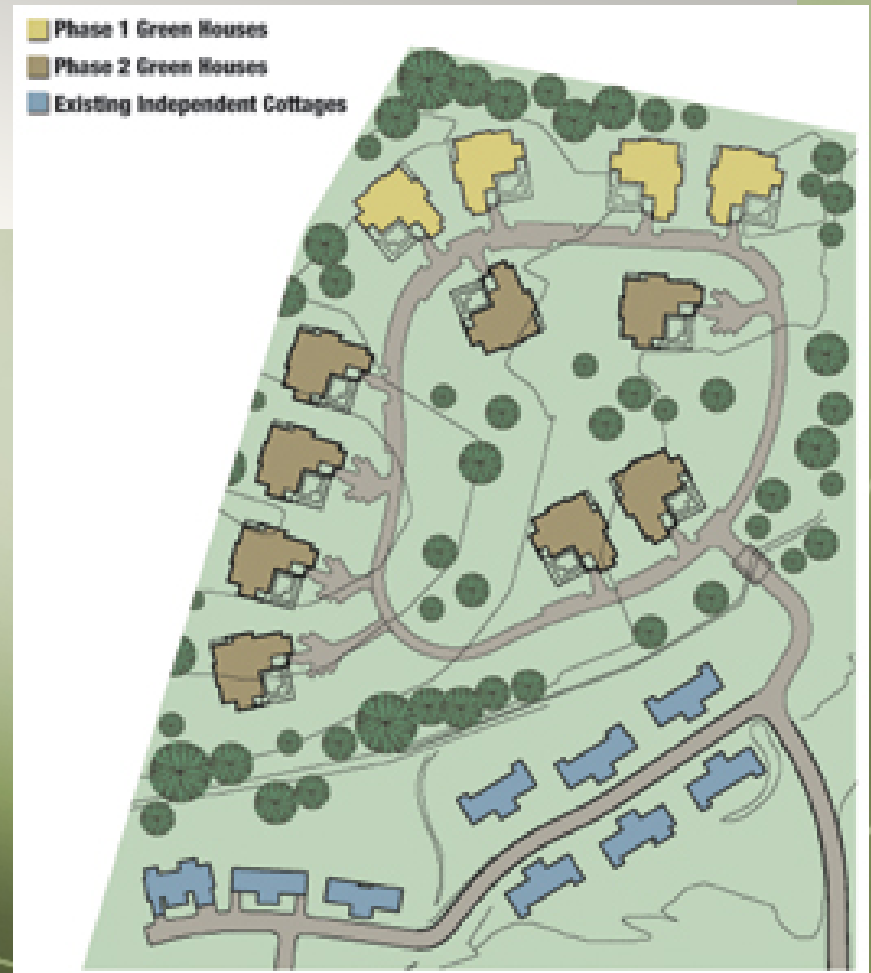


Expectations and “Demands”

⊕ Baby Boomers and Beyond

⊕ “Nursing Homes”

⊕ Household Models



Expectations and “Demands”

⊕ Baby Boomers and Beyond

⊕ “Nursing Homes”

⊕ Neighborhood Models -

⊕ The neighborhood model breaks up traditional nursing units into smaller functional areas and introduces resident-centered dining. The role of a "neighborhood coordinator" is typically formalized at this stage and neighborhoods are given unique names.

Expectations and “Demands”

⊕ Baby Boomers and Beyond

⊕ “Nursing Homes”

⊕ Neighborhood Models -

⊕ Some “traditional” nursing home building designed can be retrofitted into neighborhoods.

⊕ New buildings as neighborhoods -



Expectations and “Demands”

- ⊕ Baby Boomers and Beyond
- ⊕ “Assisted Living” and “Housing with Services”
 - ⊕ More Specialized
 - ⊕ Regionally appropriate to clients
 - ⊕ Less “cookie-cutter” construction
 - ⊕ Where there is money...resort-like design and services
 - ⊕ More space – less studio apartments
 - ⊕ More dining options (think of a cruise)
 - ⊕ Fire Suppression Systems required

Expectations and “Demands”

- ⊕ Baby Boomers and Beyond
- ⊕ “Assisted Living” and “Housing with Services”
 - ⊕ Much more built-in technology – cameras, motion sensors, toilet-use sensors, sensors on refrigerators and cooktops, bed sensors, etc. Activity information gets dumped into a computer and any irregularities identified from normal routine are emailed to family member or other identified “case manager” for investigating.

Expectations and “Demands”

⊕ Baby Boomers and Beyond

⊕ “Assisted Living” and “Housing with Services”



Base Station/Key Fob - Local display for alarms / alerts; transmits alerts to designated responders

Home Fob - Detects when senior leaves and/or returns to residence

Call Pendant - Used as an emergency call button. The pendant may be worn or carried.

Bed Sensor - Detects when occupant gets into / out of bed

Contact Sensor - Monitors usage of cupboards, refrigerators, etc by doors opening / closing

Motion Sensor - Detects motion in a residence

Toilet Sensor - Detects flushing of toilet

Chair Sensor - Detects when occupant gets into and out of chair

Orientation Sensor - Detects opening and closing of (vertical) lids and doors (example: garage door)

Appliance Sensor - Detects if appliance is on or off

Power Relay - Detects whether device is on or off, and can switch device on or off

Range Extender - Increases transmission range and strengthens system network

Water Sensor - Detects water flow

Expectations and “Demands”

- ⊕ Baby Boomers and Beyond

- ⊕ “Home”

- ⊕ What do we need to change to stay at home?

- ⊕ Downsizing, one-level living, accessible

- ⊕ Many of the same technology/monitoring options becoming available for Assisted Living will also move into personal residences.

Expectations and “Demands”

- ⊕ Baby Boomers and Beyond
- ⊕ “Hospitals”
 - ⊕ Private Rooms
 - ⊕ Designed to be less noisy
 - ⊕ Bring nature in
 - ⊕ Improved ventilation and filtration
 - ⊕ Better lighting and more natural lighting
 - ⊕ Better designed nurses stations

*Thank You
& Travel Safely*

⊕ Questions?

**Care
Providers**
Of Minnesota

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