



**DIXON HUGHES** PLLC

Certified Public Accountants and Advisors

## SENIOR LIVING CHALLENGE: CAPTURING THE DEMAND FOR ASSISTED LIVING SERVICES

Dixon Hughes PLLC  
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Remember the 90's when assisted living facilities were popping up like Starbucks® on every corner and leaving markets saturated? Well, thanks to state regulation and healthcare company mergers, the appetite for providing assisted living services has waned in recent years. Although the growth in facilities offering traditional assisted living services has moderated, growth and activity continue. Therefore, it is still important to measure demand for these services and analyze the potential growth opportunities for additional programming, such as caring for patients with dementia-related disorders.

Who is a candidate for assisted living services and how is a market area evaluated? What is the appropriate demand methodology and what is an acceptable penetration rate? This white paper attempts to address these and other questions related to assessing the demand for assisted living care. Research was conducted on multiple industry methodologies in an attempt to understand and define the thought process behind calculations for assisted living demand. The penetration rate calculations, discussions and methodologies in this document represent these methodologies as interpreted by Dixon Hughes PLLC, a leading provider in healthcare advisory services.

### **Who is a Candidate for Assisted Living Services?**

According to the Assisted Living Federation of America (“ALFA”), “assisted living” is defined as offering “personalized assistance, supportive services and healthcare in a professionally managed group living environment.” The decision to enter an assisted living facility (“ALF”) often depends on an individual’s need for assistance and the available alternatives. In general, the typical prospective assisted living resident has the following characteristics:

- Lives alone;
- Requires assistance with activities of daily living (“ADLs”) such as dressing, bathing, eating, toileting, mobility, and instrumental

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activities of daily living (“IADLs”) such as meal preparation, home maintenance, shopping and personal finance, all of which are generally used to measure levels of functioning and estimate the care needs of a specific population;

- Is age-qualified; and
- Is income-qualified.

Some assisted living communities offer specialty care services and programming designed to care for residents with dementia-related disorders. Individuals with dementia-related disorders seeking residential care may receive care in either assisted living or, depending on the progression and severity of the disease, may require more intensive care in a skilled nursing facility.

## Evaluating the Market for Assisted Living Services

While there are many qualitative factors that are important when evaluating a market for assisted living services such as sponsorship, site evaluation, alternatives for care, and market maturity, this analysis focuses on quantifying the demand for assisted living services and describing the components involved in capturing the targeted market. There are five basic components to consider when calculating penetration rates for assisted living services:

- Primary market area definition, including the related resident draw percentage;
- Age qualification;
- Income qualification;
- Percentage of seniors living alone; and
- Percentage of seniors requiring assistance.

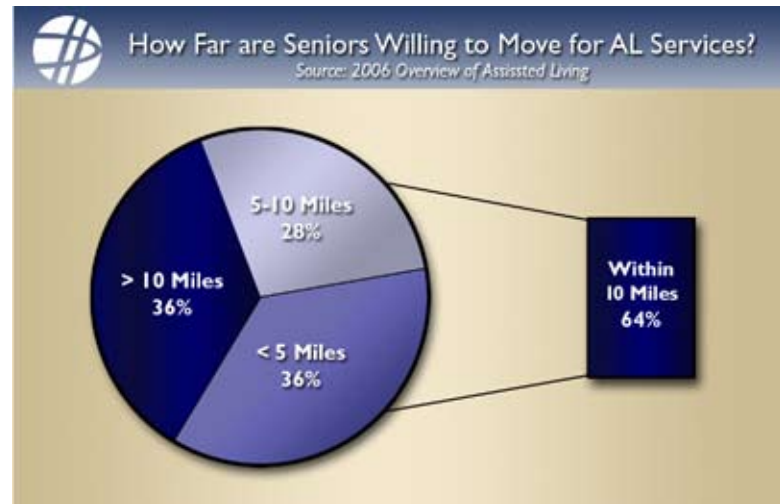
Dixon Hughes has compiled a database of approximately 50 assisted living projects developed or financed since 2000 that benchmarks important criteria, including age- and income-qualified individuals, the percentage of seniors living alone, the percentage of seniors requiring assistance and penetration rates for assisted living services.

### Primary Market Area Definition

A primary market area (“PMA”) for an assisted living project is typically determined by the historical experience of the provider (if applicable) and/or the experience of existing providers within the PMA.

How far are seniors willing to move or relocate to access assisted living services? Based on the need-driven nature of the services, seniors requiring assisted living services generally

originate from within a close proximity of an ALF. The PMA for assisted living services generally lies within a five- to 10-mile radius of the facility depending on whether it is located in an urban (smaller PMA), suburban or rural area (larger PMA), and it is typically the primary location from which most residents will originate.



According to the *2006 Overview of Assisted Living*, more than 60 percent of residents relocate to within 10 miles of their closest adult child or relative and almost 80 percent relocate to within 25 miles. Because of the significant influence that adult caregivers have regarding parental decisions to seek care, many facilities are experiencing higher draw percentages than independent living from **outside** the primary market area, particularly in high-growth or in-migration markets with high concentrations of adult children.

Based on the smaller geographic market area typically defined for assisted living services, the percentage of residents from the PMA, as experienced by assisted living providers and utilized for planning purposes, is generally between 70 and 80 percent.

### Age Qualification

The *2006 Overview of Assisted Living* reports the median age of residents admitted into assisted living is 85 years old. Younger seniors may require assistance with ADLs and IADLs because of falls, fractures or the absence of a caregiver and may consider a move to an ALF as early as age 75. The U.S. Census Bureau reports statistics on the percentage of elderly requiring assistance with ADL and IADL for ages 75-79 and ages 80 and over. Therefore, an age qualification of 75 years or older is typically used to measure the demand for assisted living services.

### Income Qualification

Annual income qualifications for prospective assisted living residents are generally based on the average monthly service fees required to move into an ALF. According to the *2006 Overview of Assisted Living*, the median monthly service fee per unit in a freestanding ALF is \$2,575 for a one-bedroom unit and \$2,914 for a two-bedroom unit, which equates to a minimum annual income qualification ranging from approximately \$31,000 to \$35,000. However, according to the same source, the median resident annual income is \$15,668 (with 25 percent of assisted living residents surveyed earning less than \$10,000 annually). According to the National Investment Center's *National Survey of Adult Children: How They Influence Their Parents' Housing & Care Decisions* conducted in 2000 (the "NIC Survey"), two-thirds of seniors already residing in market-rate properties have annual incomes of less than \$25,000. So, how can an assisted living resident afford the cost of care?

Some demand methodologies also consider homeowners with a lower income threshold to be included based on the assumed "spend-down" of a senior's asset base that will provide the financial means to afford assisted living services. According to the *2006 Overview of Assisted Living*, the median resident asset value, including home equity, is \$250,000. Therefore, non-income-qualified seniors may utilize other financial means, such as the proceeds from the sale of their home or other assets, in order to assist with the cost of care.

Furthermore, adult children or family members may subsidize the cost of assisted living services, enabling a non-income-qualified senior to afford this level of care. The *2006 Overview of Assisted Living* reports that approximately 48 percent of assisted living residents surveyed indicated "family" as their primary payment source for care in a freestanding ALF. In addition, the NIC Survey also reports that 26 percent of adult children or a family member assist in paying for assisted living services, with an average contribution of \$598 per month. For this reason, assisted living penetration rates are shown as a range between age-qualified individuals and age- and income-qualified individuals.

Based on the information above and depending on the type of market in which the AL services are provided, Dixon Hughes typically considers seniors age 75 and older with the following annual incomes to be qualified for assisted living services when calculating penetration rates:

- \$25,000 and higher and homeowners earning between \$15,000 and \$24,999, or
- \$35,000 and higher and homeowners earning between \$25,000 and \$34,999

### Percentage of Seniors Living Alone

According to the 2000 U.S. Census, approximately 50 percent of seniors age 75 and older live alone. This is supported by the Dixon Hughes benchmark database, where the average percentage of seniors living alone is approximately 48 percent as derived from Claritas, Inc. ("Claritas"), a firm that specializes in the analysis of demographic data. The percentage of individuals living alone varies by market area. Applying the percentage of seniors age 75 and older living alone to age- and income-qualified households in the PMA reduces this demographic category to individuals rather than households.

### Percentage of Seniors Requiring Assistance

The decision to enter an ALF often depends on the individual's need for assistance and the available alternatives in the market. The following table shows the percentage of the elderly requiring assistance with ADL and IADL, according to the U.S. Census Bureau.

Percentage of Elderly Requiring Assistance with ADL and IADL	
Age Group	Percentage of Population Requiring and Seeking Assistance with ADL and IADL
75 – 79	16.0%
80 and over	30.0%

Source: U.S. Census Bureau, *Americans With Disabilities: 2002*, P. 4, Washington, DC, May 2006.

Applying the percentages to senior household demographics for a certain market area, the percentage of seniors requiring assistance generally falls between 27 and 37 percent, according to the Dixon Hughes benchmark database.

## How Do We Determine the Number of Competitive Units in a PMA?

Because of the variations in state regulations that define assisted living, determining the competitiveness of ALFs can be subjective. States have various names for facilities providing assistance including assisted living facilities, residential care facilities, domiciliary care facilities, boarding homes or personal care facilities. Most states categorize ALFs according to size. For example, smaller ALFs are often categorized as “group homes” or “adult care homes” that have a capacity to care for fewer than 20 residents. Smaller communities may not be considered competitive due to their size and the limited services and amenities offered. Therefore, it is important to understand state regulations and licensing requirements, as well as the number and type of accommodations offered, when considering the competitive facilities in a particular area.

Typically, competitive assessments are based on communities that offer similar pricing structures, levels of care, programming and physical design. The rate structures and care packages may seem comparable on paper; however, upon physical examination of a facility, the facilities may not be comparable at all. Site visits are important for accurately assessing a competitor based on the age of plant, community design (medical vs. social model and institutional vs. residential layout), as well as the location and setting. Dixon Hughes typically considers competitive facilities to be those offering

similar pricing, services, care levels, physical layout and design of the provider. Smaller group homes with limited capacity, services and amenities are typically eliminated as competitors.

## How are Assisted Living Penetration Rates Calculated?

Dixon Hughes typically calculates a gross market penetration rate to assist in determining market demand for assisted living services. An assisted living gross market penetration rate is the percentage of age- and income-qualified individuals the total market has absorbed or must absorb for the entire market to achieve stabilized occupancy. The gross market penetration rate is calculated by dividing the total number of competitive beds expected to be filled from the PMA by the number of qualified individuals in the PMA. Gross market penetration rates are calculated in the current year and the projected year in order to show the rate of change between years as well as the impact of planned units on the market.

Although not shown, a project penetration rate for assisted living services (the percentage of qualified individuals from within the PMA that would need to move into a project’s assisted living units in order to achieve stabilized occupancy levels) may also be calculated. A project penetration rate calculation is more relevant to the development of a larger stand-alone assisted living facility, rather than for an assisted living expansion of a community offering a continuum of care, where internal resident demand often assists in filling those units.

For purposes of demonstrating the calculation methodology of the gross market penetration rate utilized by Dixon Hughes, the following assumptions are used:

Parameter	Assumptions	
	Current Year 20xx	Projected Year 20yy
Number of existing ALF competitive units	300	300
Number of planned ALF units at the project	40	40
Number of planned ALF units in the PMA	30	45
Stabilized occupancy percentage	93%	93%
Percent of units to be occupied from the PMA	75%	75%
Number of age-qualified households (a)	8,000	10,000
Number of age- and income-qualified households (b)	4,000	5,000
Percent requiring assistance (c)	28%	28%
Percentage living alone (d)	50%	50%
Estimated Number of Age-Qualified Individuals (a*c*d)	1,120	1,400
Estimated Number of Age- and Income-Qualified Individuals (b*c*d)	560	700

**Table I - Assisted Living Gross Market Penetration Rates**

	20xx		20yy	
	Age- Qualified Individuals	Age- and Income- Qualified Individuals	Age- Qualified Individuals	Age- and Income- Qualified Individuals
Number of Qualified Individuals	1,120	560	1,400	700
Number of Individuals in Existing ALF Units	209 <sup>(1)</sup>	209 <sup>(1)</sup>	209 <sup>(1)</sup>	209 <sup>(1)</sup>
<b>Total Qualified Individuals (b)</b>	<b>1,329</b>	<b>769</b>	<b>1,609</b>	<b>909</b>
Number of Individuals in Existing ALF Units	209 <sup>(1)</sup>	209 <sup>(1)</sup>	209 <sup>(1)</sup>	209 <sup>(1)</sup>
Number of Planned ALF Units at the Project	28 <sup>(2)</sup>	28 <sup>(2)</sup>	28 <sup>(2)</sup>	28 <sup>(2)</sup>
Number of Other Planned ALF units in the PMA	21 <sup>(3)</sup>	21 <sup>(3)</sup>	31 <sup>(4)</sup>	31 <sup>(4)</sup>
<b>Total Units, Including the Project (a)</b>	<b>258</b>	<b>258</b>	<b>268</b>	<b>268</b>
<b>Gross Market Penetration Rates for ALF (a/b)</b>	<b>19.4%</b>	<b>33.6%</b>	<b>16.7%</b>	<b>29.5%</b>

(1) Reflects 300 assisted living units in existing competitive facilities assuming that approximately 75 percent (225 units) have originated from the PMA and 93 percent occupancy (209 units).  
 (2) Reflects the 40 planned assisted living units at the project, assuming 75 percent (30 units) would originate from the PMA and assuming 93 percent occupancy (28 units)  
 (3) Reflects the 30 planned assisted living units in 20xx, assuming 75 percent (23 units) would originate from the PMA and assuming 93 percent occupancy (21 units).  
 (4) Reflects the 45 planned assisted living units in 20yy, assuming 75 percent (34 units) would originate from the PMA and assuming 93 percent occupancy (31 units).

In the above calculation, the number of individuals in existing assisted living units is added back to the number of age-qualified and age- and income-qualified individuals as derived from demographics extrapolated from the U.S. Census due to the exclusion of assisted living residents from certain demographic data. According to Claritas, assisted living residents are categorized as “non-institutional” population living in “group quarters.” Prior to the 2000 Census, both population and household group quarters figures were excluded from the demographic data. The 2000 Census included residents in group quarters (i.e., assisted living residents) in the population data; however, this category was excluded in household estimates and projections. Based on Dixon Hughes’ methodology, the number of qualified individuals is derived from household statistics after applying the percentage of seniors living alone. Therefore, in order to begin the penetration rate calculation with an appropriate qualified pool of individuals, assisted living residents living in existing facilities are added back.

**How are penetration rates interpreted?**

In general, the lower the penetration rate, the higher the market depth for a project. In addition, the rate of change between the current year and projected year is also important. A decrease in the gross market penetration rates over time indicates that the growth in the number of age- and income-qualified households is adequate for or higher than the number of ALF units (i.e., population growth is exceeding the supply growth) to support a project’s units and other planned units within the PMA. A small increase in the gross market penetration rate is also a favorable indicator, suggesting that the planned units only have a slight impact on the market.

**Certain market areas may appear over-saturated, yet these highly mature and well-educated markets have high occupancy levels and a steady growth rate of additional planned assisted living activity.**

However, penetration rates are only one indication of market strength for assisted living services.

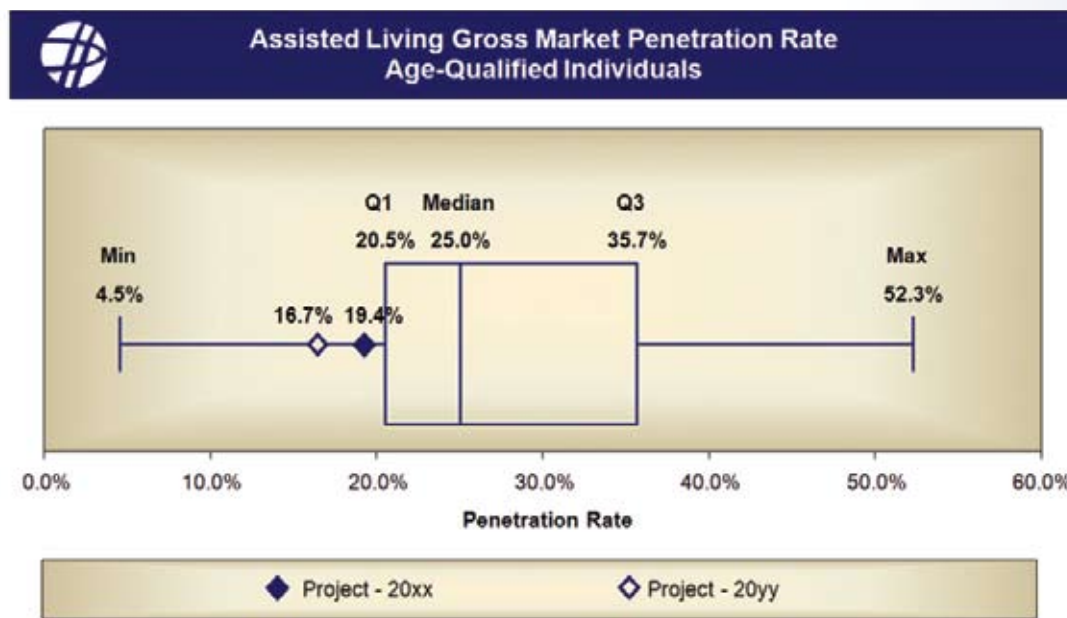
Penetration rates should be considered in context of other market factors, such as:

- *Occupancy levels*
- *Absorption experience*
- *The number of proposed units in the primary market area*
- *The design of the assisted living units at the project and alternatives for potential assisted living residents*
- *The internal demand if offered in a continuing care setting*
- *Wait list activity*
- *Length of stay*
- *Market awareness*
- *The provider’s marketing plans and efforts*

Penetration rates may be higher in more mature senior care markets, where the market may appear saturated with a large number of units; however, the competing facilities may actually be fully occupied with active waiting lists.

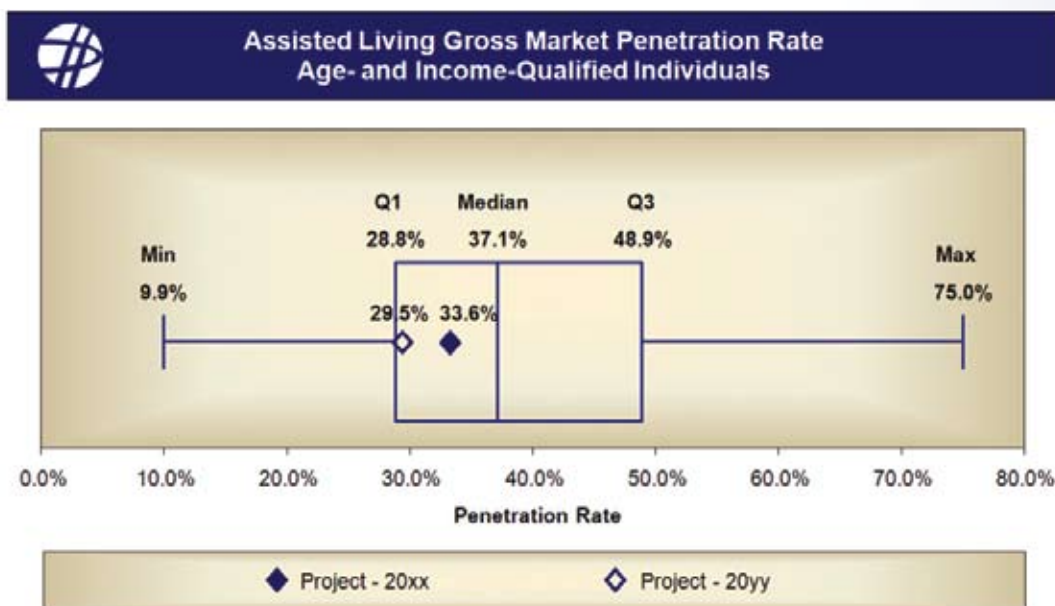
Penetration rate levels in mature markets where market awareness and acceptance of the assisted living product is high may well exceed the standard industry thresholds, experiencing rates up to 55 percent or more.

The following information presents the example assisted living gross market penetration rates for age-qualified and age- and income-qualified individuals for 20xx and 20yy (using Table I as an example) compared to the Dixon Hughes database of approximately 50 assisted living projects financed since 2000. The summary measures of the age-qualified and age- and income-qualified penetration rates are represented graphically using boxplots. Quartile divisions are calculated by ranking the data in the database in ascending order and then dividing the list into four equal groups. “Q1” represents the 25th percentile of the database (i.e., the point at which 25 percent of the senior living projects in the database are at or below), the “median” represents the 50th percentile and “Q3” represents the 75th percentile.



Data within the “box” fall in line with the middle 50 percent of senior living communities in the Dixon Hughes database.

The assisted living age-qualified and age- and income-qualified gross market penetration rates for the example project in both 20xx and 20yy fall below or just above the 25th percentile when compared to senior housing projects in the Dixon Hughes database. This implies that the total market must absorb a lower percentage of the age-qualified and age- and income-qualified individuals in the PMA than over 75 percent of the assisted living projects included in the database and could be considered a favorable indicator. However, although a penetration rate may fall below the 25th percentile and have a large number of age- and income-qualified households in relation to the number of assisted living units in a market, the market may be uneducated or not accepting of the product. On the other hand, if a penetration rate falls above the 75th percentile, the market may be saturated, but may have a higher acceptance level for senior housing and may support higher penetration rates.



## Adult Caregiver Influence

Although there is no generally accepted penetration rate methodology for capturing the influence of adult caregivers in a market area, it is important to understand the size and economic status of the adult child market. As previously described, these adults often serve as caregivers and provide financial support for their aging parents. Seniors also tend to relocate to the same geographical areas as their adult children and their families. In addition, markets with significant economic growth may reflect a substantial increase in the population size of adult caregivers, thus providing a prediction of the strong market potential for seniors relocating to the area to be closer to their families.

***Tracking migration data or population relocation statistics of adult caregivers is an important step in evaluating the economic status of a PMA and “secondary” demand for senior services.***

## Capturing the Demand for Dementia-Related Disorders

While Dixon Hughes does not utilize a specific methodology to calculate penetration rates for dementia care, there are several indicators that help size the available market and potential opportunity to assist this affected population in a residential setting.

As a subset of assisted living, some industry analysts recommend approximately 12 to 15 percent of the beds be designated for dementia care.

According to the National Alzheimer’s Association, approximately 18.7 percent of persons aged 75 to 84 and 47.2 percent of persons aged 85 and older have Alzheimer’s disease or some form of dementia. In addition, the *2006 Overview of Assisted Living* reports that one-third of assisted living residents have a diagnosis of Alzheimer’s disease or another form of dementia. For those residents diagnosed with a form of dementia, 46 percent have mid- or late-stage Alzheimer’s, 21 percent have early stage Alzheimer’s and 33 percent have another form of dementia.

According to NIC, since 2005 through the first quarter of 2008, the dementia care segment has grown the fastest with the largest net increase in supply (9.9 percent) compared to other senior living care levels including independent living (7.4 percent) and assisted living (3.6 percent).

Within NICMAP’s top 100 major markets analyzed, 15.8 percent of the total inventory of assisted living units are designated for dementia care.

## Summary

Despite various methodologies and calculations utilized to capture demand for assisted living services, assessing the potential demand for these services involves multiple subjective factors. Determining the appropriate candidacy for assisted living services through consideration of industry-based criteria is a well-established technique and serves as an underlying basis for measuring a market for an ever-changing assisted living product. However, given the significance of the adult caregiver influence and the rise of dementia care focused services, this methodology is forever challenged. In addition, while “acceptable” penetration rates may be calculated to provide a numeric indicator of demand, more often, “soft” market data and the other factors described should be considered in conjunction with penetration rates in order to determine a project’s potential for success.

It is important that providers collaborate with leaders in the senior living field who often provide industry knowledge and offer current strategic alternatives based on market intelligence. All things considered, it is important for the sponsor of a project to understand assisted living market conditions and appropriate demand methodologies in order to be comfortable during the project development process. ■

## Sources

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“National Survey of Adult Children: How They Influence Their Parents’ Housing & Care Decisions.” *National Investment Center for the Seniors Housing and Care Industry*. 2005.

## Acknowledgments

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## About Dixon Hughes’ Senior Living Practice

The Dixon Hughes Senior Living Practice has extensive experience helping clients plan and develop operationally and financially sound projects. We have taken great care in assembling a team of professionals who collectively possess over 150 years of senior living experience in a broad range of financial, development, marketing and operational disciplines.

We assist clients with strategic and development planning, financial feasibility studies, market and operations assessments, and performance and process improvement. Collectively, we have supported senior living providers across the country with projects representing in excess of \$7 billion of capital raised.

**Keith Seeloff** is the Member in Charge of the Senior Living Practice, leading a team of 25 professionals providing business advisory services for proposed and existing continuing care retirement communities (CCRC), assisted living facilities, skilled nursing facilities and other retirement housing projects. With more than 20 years of experience in healthcare and senior living, Keith has been a key participant in over 100 CCRC development projects, including startup communities, existing campus repositionings and obligated group financings, resulting in over \$2 billion in tax-exempt bond financing. Keith is an accomplished presenter on topics affecting the senior living industry.

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