Current Trends in Senior Living as a result of Aging in Place And their Impact on Assisted Living

An Architect's Perspective

May 2012.

One advantage we enjoy as professionals in the field of Senior Living is the opportunity to resolve conflicting ideas by putting ourselves in place of the residents we serve, in other words, what would *we* want in their place.

A few years after moving from India to the 'promised land' half way around the world I asked my parents (as an only child), that it made a lot more sense if they moved to the US in their twilight years. The answer was an emphatic "thanks but no thanks". They felt they were perfectly happy in their familiar surroundings with their friends and accustomed life style and would manage. To this day, some 30 years later, the impact of that incident sticks in my mind. That, I feel is the basis for why we need to create senior living environments in all locations, all over the world, close to where people have lived. It has nothing to do with whether we have a moral and cultural obligation to take care of our parents in our own home as is more prevalent in the Far East.

Introduction

The objective of this paper is to better understand the impact on programming and design that the preference for aging in place may have on all aspects of senior living especially assisted living, with respect to both standalones and as part of senior living campuses now and in the future.
And as a follow up, to examine the impact of aging in place as it affects programming and master planning of Continuing Care Retirement Communities (CCRC) as a whole.
The impact could be on:

1. The ratios of the various health care components within the continuum of a (CCRC) campus.
2. Master planning of a CCRC campus, along with the design of its individual components.
3. How we address these issues on an existing CCRC Campus versus one on a green field site.

These issues are addressed from the perspective of

a. Residents' desires and preferences
b. Operators' issues including but not limited to, operational and financial efficiency, because everything we propose has to be financially feasible and affordable to be viable
c. Legal impact issues that relate to safety and liability

A typical senior's preferences

It is always useful to verbalize the basic preferences that attract a senior to a CCRC.

- Sense of Security
- Comfort of knowing when his/her health fails to the extreme, that if needed, there will always be a warm and inviting home like health care nursing facility to receive him/her with private rooms.
- Be able to live, preferably, in an inviting home like or resort setting with a wide variety of choices and opportunities to socialize
- Preserve freedom of choice for activities and dining
- All this within his/her financial means

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Part A
Historical Significance

To examine the impact of aging in place on ratios of assisted living within the continuum, one has to first come to grips with some of the core reasons why Continuing Care Retirement Communities came into being and how they are affected within the various diverse cultures of the world. Although known to most, it is relevant to keep the following context in mind.

1. **Shortage of time and the phenomena of expanding geographical distances**
   Speaking of the period before the 60s, many of the eastern cultures and less affluent countries of the world (and many even now), did not have this component of service within their boundaries.
   It is obviously a byproduct of a more affluent and fast paced society that in many ways does not have adequate time or the resources within its own family social structure to adequately care for its seniors that are no longer able to care for themselves.
   In traditional societies of the east, the unwritten code demanded the older siblings of a family bear the responsibility of taking care of their parents. This was more practical when, a 100 years ago, children stayed relatively close to where they were brought up.
   With the passage of time in the US and elsewhere, out of necessity, many younger generations started to scatter from their home towns looking for opportunities in greener pastures.
   The parents now had to choose between moving in with their children for care away from familiar surroundings and staying at home, but without their children to care for them.
   Living with their children implied significant loss of independence, privacy and quite often, choice of being able to do what they wanted to do and when.
   I could give many examples, including my own, where parents have invariably opted to stay in their current familiar surroundings far from their children, rather than move in with them far away.
   This dilemma is no longer limited to eastern cultures. In the US also there are many that have to face this issue.

2. **Providing Companionship, Socialization and Security**
   The alternative solution of a community dedicated to seniors evolved because it provides a higher level of engagement and companionship for seniors within their own age group as well as providing security.
   What we have sacrificed to varying degrees is the unfulfilled need for interaction with all age groups, especially children, like we always did during the earlier part of their lives.

Segregation by age does not normally exist in nature. It does exist in our society, but it is more economic and cultural rather than by age.
Socialization and companionship for the healthy well being of seniors is needed with all age groups, not just with other elderly.

Part B
Impact of Aging in Place on Assisted Living

The role of assisted living as a standalone and its logical evolution into a mini continuum as a basis for survival

In an attempt to build a case for a smaller role or ratio for pure "Assisted Living" in a conventional CCRC, I have to first differentiate between the dynamics of a standalone, from one as part of a continuum.
In the 1980s, as the Director of Design at a nationally recognized architectural firm that specialized in senior living at that time, I was very involved with the first prototype assisted living models that were created for Marriot Senior Living Services (Brighton Gardens), the Sunhealth model for assisted living (Sunbridge), the assisted living model for Manor Care, another that specializes primarily in skilled care as well as prototype models for memory impaired facilities in different parts of the country.

The reason for this qualification is that even then I was intuitively of the strong opinion that assisted living in its purest form, especially as a standalone model did not appear to be very financially feasible or practical.
Over the years, many stand alone assisted living facilities have since, disappeared or been absorbed by others. The country is littered with casualties like Sunbridge, Karrington etc which were victims of consolidation because they were not flexible enough to make it on their own. Even the once mighty Marriott Senior Living Services 'merged' with Sunrise. As we all know even this last remaining major player in assisted living is having its share of challenges today.

The window of opportunity where a resident qualifies to live in a standalone assisted living facility is relatively small. First of all, he/she waits till the last possible moment before deciding to move into a facility. This is usually triggered by an incident that occurs that exposes his/her physical vulnerability. It takes a while to conduct the medical qualification tests and paper work, and quite often they have barely moved into the facility, made a few dear friends when they have to move out because of deteriorating health and look for nursing care. Even though most assisted living facilities have an affiliation with a nursing care provider, this can still be a traumatic experience because they have to enter a strange new facility and are again separated from their friends.
Besides being financially impractical because of the larger turnover and disproportionately higher staffing costs, this progression is also devastating to the person's feeling of well being, security and orientation.

The Mini Continuum

What we are finding is that the only 'standalones' that are working reasonably well today are the ones that have wisely expanded their services at both ends of the continuum so they are able to bring in residents sooner and retain them longer, into the higher acuity areas, as well as at the front end to attract prospects at an earlier level when the residents' needs for services are not as high.
In other words they have simply expanded into a mini continuum of their own on a more modest but effective scale. These facilities are more prevalent in urban areas

Now the case for Assisted living in a CCRC continuum….

As a level of care where a senior can get some measure of assistance in his/her Activities of Daily Living (ADLs), because he/she is not able to perform them independently, and also get companionship and socialization.

This is where, when in doubt I put myself in the resident's place and asked myself, where and how I would want to spend the last years of *my life.*

Would it not be more desirable to live in the residential component within the CCRC, or at home instead, till that point? That would be *my* preference.

Then I could socialize when *I want to,* rather than be moved around more on a facility dictated schedule based on staffing convenience.

It is also the majority's opinion, because this basic desire is what is giving rise to wanting to Age in Place. And how do we achieve this? Besides compact design to reduce walking distances, the key variable here is Home Health Services.

Today's Seniors Campus and the ever increasing gravitation towards choice and Home Health

As the Senior model has evolved over the years, seniors have become more informed and opinionated as to where and how they want to live.

In turn, it has allowed a majority of seniors to age in place using support from Home Health within their residential living unit, which has always been their preference, seeking companionship and choosing to socialize *when* they want to, *on their terms*. Home Health has shown them a way of achieving this.

The European Model with Home Health

Learning from the European models in socialist democracies like Sweden, Norway, Denmark, Britain and France, where home health is a common, widely prevalent and viable care option because it is funded primarily by the State, we realize that home health/home care can be, and has been a large part of the answer for a fairly long time.

As explained earlier, home health/home care can provide a variety of service options to residents based on their specific needs for a long time.

The key is always how to keep these services affordable.

This will allow them to age in place in their apartments or home until:

A. They have an injury where they need rehab in a skilled care or rehab/Medicare facility, get well and return to their home/apartment or
B. The scope, and/or frequency of services, requires the transition to a skilled care facility permanently. The probability of seniors actually requiring skilled nursing is statistically proven to be less than 5%.

The solution, through flexible program services and design

The ideal solution would be to be able to care of a person in their own home or apartment longer, in a more affordable model with access to any services needed at an affordable level.

Simply provide most assisted living amenities within the confines of residential living.

To avoid the obvious and implied additional cost, since there is no free ride, there could be an option of combining home health services with ADL support.

a. Provide flexible ADL services, combined with home health, to a larger population that includes residential living with a smaller average level of assistance with more aides.
   The challenge is going to be in the licensing of these facilities.

In some states this may not be currently feasible because their current regulations require the entire facility to be licensed as an assisted living facility.

The result will be to design these facilities in a more compact configuration, wrapping the apartments around the common spaces as much as possible to minimize travel distances and maximize the efficiency of staff as illustrated in the suburban model diagram (pg 15), later in the paper. *Minimizing travel distances will be the principal design challenge and objective. That is why from a theoretical point of view, the perfect solution is probably a high rise.*

The math of scale dictates that in the second scenario, the overall average cost for the services should go down because we would be providing fewer average services per resident but to a much larger population for an overall higher revenue base.

To clarify, I am not suggesting charging all residents for services at the same level whether they are using the services or not. Instead, am suggesting, only charging residents for services as they use them, on an a la carte basis.

If this solution has merit, then seniors would be able to live longer in their apartments with the probability that this would be their final destination at an affordable cost, with a less than 5% chance of moving permanently to skilled care. The only exception would be if they needed dementia care.

Whether this is now called Residential Living or Home-assisted Living or by some other catchy name is just semantics.

They would be spending the rest of their lives in their apartment or home, and if they had an accident, move to a skilled care facility only *out of necessity*.

They would then either move back to their apartment as their health improved, or stay in skilled care if their health deteriorated.

The important distinction here is the offering of *choice versus necessity.*

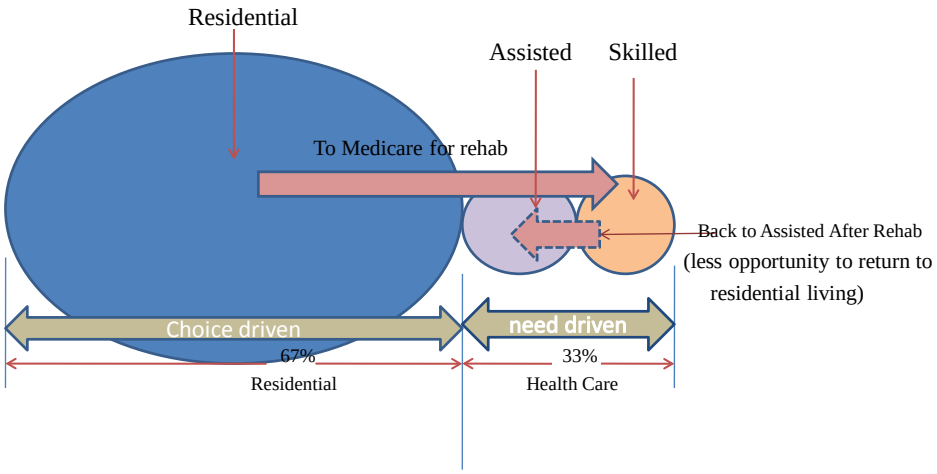
The introduction of an advanced, well designed and affordable home health care program would allow complete flexibility within the residential component of the continuum.

One can make a stronger case for assisted living in a suburban, spread out setting in a CCRC that already exists, where distances to traverse are longer, but in an ideal compact or urban CCRC, assisted living as we know it today would merge and consolidate with residential living.

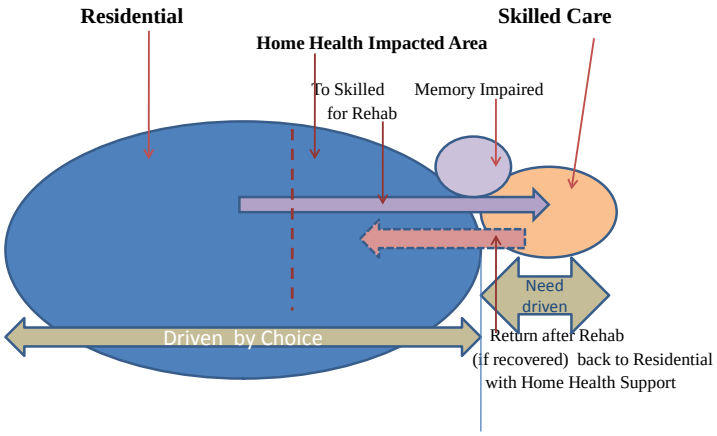
The argument against this line of thinking maybe that the acuity level of the entire residential component could increase over time. I am not so sure because after the initial change in the paradigm, if younger seniors kept entering the facility, the ratios may stay the same. Just the *range* of acuity would be wider. How much of a detriment this will be from a marketing standpoint is the big debate.

The age of residents entering CCRCs is also likely to increase in the future anyway because of their desire to stay in their homes longer, resulting in an increased acuity level and more services needed at the entry level.

Minimal Home Health with defined Assisted Living (Current Model)



Effect of Home Health with flexible Services (Preferred)



Socialization and Companionship

The only aspect unaddressed in the home health model that is also extremely important is socialization and companionship. An "advanced" component of Home Health, where appropriately qualified Home Health staff in social programs would need to assist the individual in this area such as with community based outreach programs.

A lot of the socialization at the residential level is naturally facilitated by the resident and residents' family members and friends anyway. In addition, social programs and activities initiated by the facility can effectively supplement this effort.

The exception to this line of thinking is advanced memory impaired residents for whom assisted living is the only alternative for now. This component may take on a different shape as science gets closer to finding a cure for Alzheimer's disease.
Although we will always need to house residents with this disease, a case is being made for designing the memory impaired component with flexibility in mind so we do not end up with an obsolete product as the industry and science progress.

I realize these thoughts may be considered a little extreme, because if you buy this line of thinking, the assisted living component within the continuum as we know it today, might cease to exist as a separate defined entity, except for the advanced memory impaired.
The same varied level of care and services would just be provided by an expanded version of home health services, within a hybrid component that would be a mixture of residential and assisted living.

The other controversial aspect of this line of thinking is the marketing perception that increased residential acuity will be a deterrent to some prospective residents. I would think the contrary for two reasons.

a. There would admittedly be more than an average number of wheelchairs, a natural occurrence in real life. We encounter wheelchairs every day (although not as many) and not think much of it.
b. More importantly, speaking for myself, if a friend and neighbor of mine aged faster than I did and had to use a wheelchair, I would welcome the opportunity to wheel him for a walk or to a location occasionally because it would give me a sense of purpose.
(Is that not also the Christian/theological thing to do?)

A byproduct of an expanded version of residential living without the assisted living component in the continuum is also Universal design within all the residential units. A user friendly residential form of living designed in, that would allow all the residents to function, even with some ADL needs, except the very extreme.
For these, the individual would move to the skilled care level where necessity would take over for choice.
Again….choice versus necessity.
Choice, to live in some form of residential/hybrid living, and
Necessity, to live in skilled care.
To clarify, by 'necessity' the implication is both financial and/or acuity based.

Part C
Impact on Aging in Place on the ratios of each component within the Continuum

Ratios within the levels of Care

1. **In the recent past (before 2000)**
Health care (assisted and skilled) constituted about one third of the total continuum. Within health care, the ratios were closer to 33% assisted to 67% skilled. This was partly because levels of reimbursements for skilled care were more generous after the early 60s than they are today and Home Health, although present, was not as prevalent and wide spread in the US.
In and after the 1960s, the skilled care industry flourished as a result of Medicare/Medicaid reimbursement initiated under President Johnson because it was more profitable for private

developers. This is apparent because of the proliferation of private skilled care facilities that were built for the next 20-30 years, both standalones and part of continuums. Examples would be Manor Care, Life Care of Nashville, TN, etc.

2. The Present (2000 to today)

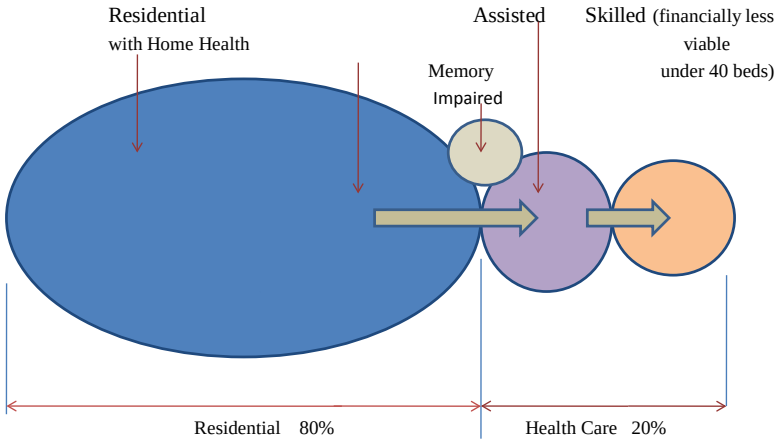
Today, the health care component is shrinking. The biggest reason for this is that it is no longer the profit center it used to be.

Skilled care reimbursement rates have been reduced drastically and experts feel health care as a component of a CCRC will continue to shrink to a ratio closer to 20% or lower, resulting in the residential component expanding to 80% or higher, the additional services in residential living being served by Home Health.

But some "experts" in the industry still have the breakdown *within* the health care component as 67% assisted and 33% skilled.

This line of thinking is flawed for two reasons, especially if the overall CCRC is smaller than 400 residents in its residential component.

Today's Model with defined Assisted Living



Staffing

If you do the math on a typical campus that has about 300+/- apartments x 1.25 residents per apartment or 375 actual residents in the residential portion x 20% = 75 in the Health Care portion.

This breaks down into 50 Assisted and 25 in Skilled Care (if we use the 67/33 breakdown).

Staffing a 25 bed Nursing facility to meet today's regulations in any state is at best a major challenge and probably not very feasible until major regulatory changes take place, even if we increase the count slightly to support some Medicare beds from outside.

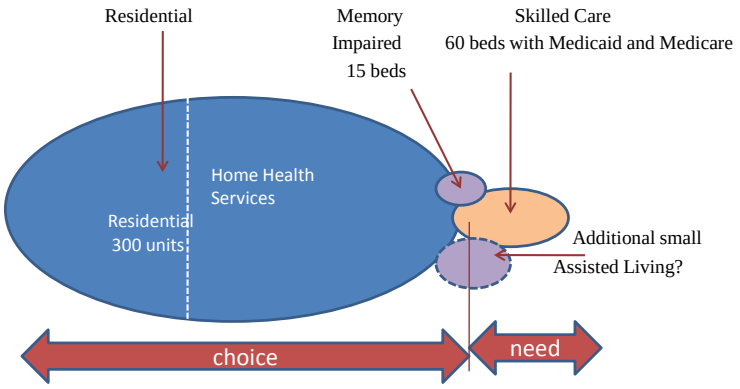
The Ideal 'small' CCRC with optimum ratios

Translating this line of thinking into the ideal ratio breakdown for a +/- 300 residential unit CCRC, the numbers work out as follows:

- Residential component with Services (apartments and cottages) 300 units
  All required assistance for ADLs provided by Home Health or limited campus staff
- Actual resident count (includ 2nd person) = 300 x 1.25 = 375 residents
- Health Care count (based on current thinking of 20% x number of residents (Assisted + Skilled) = 75 beds
- Ideal Assisted Memory impaired unit size = 15 beds
- Ideal Skilled care unit size = 60 beds
  45 Internal admits fed from within campus (Private Pay and Medicaid) + 15 Outside admits for Medicare/rehab (all private rooms in private pay and Medicare)
- This 60 bed unit in skilled will have the added advantage of not being dependent on outside admits (besides Medicare) and the fluctuating outside market to be financially feasible.
  This affords economy of scale for the more staff intensive component of Skilled Care, provides additional revenue possibilities via Medicare for outside admits, and at the same time provides residents the choice of being able to live in their apartments for a much longer period of time, the primary objective of Aging in Place.

- Having said this, these ratios are still not a 'one glove fits all' because they are still dependent on the regulations of individual States.
  For example, some State regulations prohibit direct outside admits into skilled care, requiring a provider to increase assisted living and also take outside admits at the assisted living level to create a larger feeder for its skilled care component.

Ideal small CCRC



Part D
Impact of Aging in Place on a Campus Master Plan and Design of its individual components

The simplest and most direct effect will be consolidation. There will be a dramatic need to reduce walking distances for residents from what is an 'acceptable' walking distance today to what the future preferences will be tomorrow.
These are walking distances to dining and most other essential and non essential activities including recreational ones.

A. Impact on existing CCRC campuses

These will be the most challenging. How will we incorporate these improvements in existing campuses especially suburban ones, where their residential components in many instances are scattered and a fair distance apart from each other?
The challenge will be to:

a. Minimize adverse impact on the lives of *existing* residents while these changes are being gradually implemented. The typical complaint, and understandably so is that, "I will not live to enjoy these improvements, so please don't disrupt my life".
b. Come up with a master planning philosophy and approach that will gradually transform the campus to meet these changing expectations.
c. The master planning will need to be flexible from a timing standpoint so improvements can be slowed down, stopped or accelerated depending on the economic and market climate of the region. *The campus will always need to be whole at the end of each step of improvement.*

d. Do all this in a financially feasible manner so as much of the improvements that are being implemented are paid off along the way as possible by revenue from the improvements.
e. Overall consolidation will have another positive impact in that administrative staffing might reduce in marketing, operational and maintenance areas.

Some of the areas that will be impacted and the potential direction of the solutions in an existing campus:

a. *Each time a new and updated component is conceived, consolidation/relocation of this part will need to be considered to bring it closer to the heart and soul of the campus, the primary activity area or the Town Center.*
   This will gradually reduce walking distances on the campus and also improve the efficiency of staffing for services being provided like Home Health.
b. Most older campuses are also sorely deficient in diverse and common amenity/activity spaces with alternate dining venues. These Town Centers, the heart and soul of each campus, will need to be incorporated in central locations with minimum disruption to essential existing resident activities.
c. Consolidation of all kitchen functions into one central primary kitchen responsible for all bulk cooking for all dining services on campus will be essential wherever possible. As other diverse dining venues are conceived they could all be served by smaller compact warming pantries, with bulk cooking still being done in one central location. This will also reduce staff.
d. As residential units become available for re occupancy, they will also need to be updated with more accessible kitchens, baths and other amenities so as residents Age in Place they can still function comfortably a lot longer in their homes and apartments.
e. To reduce parking requirements, there will need to be a re education of the paradigm we and all seniors are accustomed to in the US. There will be increased pressure to introduce a car sharing program where common vehicles owned by the campus could be made available to residents. This will be a big paradigm shift because of the loss of independence implied by losing your own car.
f. To pay for these improvements,
   - Additional state of the art residential living units with higher entrance fees will need to be introduced that meet the expectations of today's seniors, to create the financial stimulus.
   - An additional surcharge to the entrance fees on apartments is also recommended for the new town center type related amenities that are gradually being incorporated on old campuses.
g. These state of the art units will also increase the overall ratio of Residential to Health Care and create a stronger feeder to the Health Care components.
h. Not being dependent on outside admits for success in the Health Care component is important to the financial stability of any campus because it also reduces the vulnerability of the campus to external changing economic and market conditions.
   The larger internal feeder explained above will help enable this.
i. Furthermore, introduction and use of a good wellness program philosophy that encourages and promotes a healthier life style will allow persons to stay in their homes and apartments longer.

In a mid rise or hi rise apartment building (possibly the perfect CCRC? See diagram on Page 13)
Conversion and consolidation can also be achieved in existing mid rise and hi rise facilities by introducing the missing components, as this architect has done on occasion.

For example, in an 8 story residential apartment building, a skilled care level can be introduced on the second floor; expanded common amenities introduced on the ground floor and assisted living/memory impaired on the 3rd floor. Alternate to regular assisted living, Home Health services could be introduced throughout.

B. Impact on Master Planning of new facilities

Urban setting Solution

The hi-rise as a response to an ideal or "perfect CCRC"

This would be an ideal hypothetical response to consolidation and a need to cut walking distances. The levels of care would simply be separated by different floors. The lower floors would be occupied by common amenities and activity spaces, followed by a skilled level floor. As we progressed higher, the care level provided would decrease and the upper floors would be occupied primarily by residential living.

As mentioned above, this model can be also be achieved by conversion of an existing mid rise or hi rise residential building with much less cost.

This solution also falls in line with green design principles and has other advantages such as:

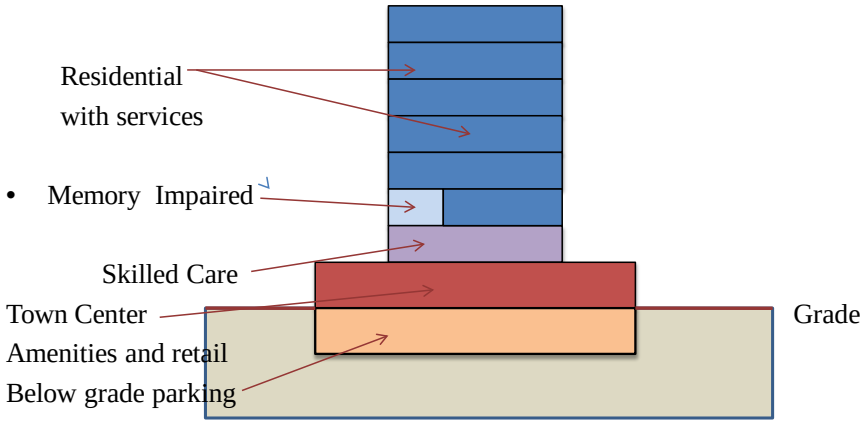
a. Distance traveled by residents to all amenities, entertainment and retail dramatically reduced
b. Distance traveled by residents to socialize with other residents also dramatically reduced
c. Less land usage
d. Lower material consumption
e. Lower and more efficient energy consumption
f. Lower operational staff needs
g. Lower use of cars will also result in lower parking requirements
   This can be further supplemented by use of common use cars.
h. Strategic location in urban settings will
   - Allow convenient access to entertainment, restaurants and social events.
   - Further reduce need for individual cars.
     Especially if located on bus and local commuter train routes.
   - Allow for access to nearby parks and green space.
   - Provide safety just by being located in a safer neighborhood.

A great feature to provide would be to add a Concierge service that would cater to any and every need of an individual, from simply getting directions, to making travel arrangements for vacations, reservations to restaurants and theater, sporting events and massages at Health clubs, dry cleaning, ordering pizza, getting information etc.

But this urban solution does have a few drawbacks.

a. It may not be allowed in certain suburban zone districts that have height and density restrictions.
b. Less surrounding green space. This can be compensated by local parks which are always a trademark of most urban metropolitan cities.
c. Urban settings also carry with them a higher noise level.

The Urban Hi rise Model (possibly the perfect CCRC?)



Proximity to retail, shopping and entertainment
Another feature that will need more attention in future CCRC designs, whether by locating them strategically or otherwise, is the strong preference of all seniors to be close to all forms of retail, shopping and entertainment so they do not have to travel far to reach them.
Ideally these would be downstairs and adjacent as they walk down from their apartments, and within walking distance.
This is another reason in favor of the urban hi rise solution where someone in say, downtown/urban parts of Chicago could walk down and be treated to a myriad of alternate forms of dining and entertainment. It would save him/her time, would be convenient, and also be another way to minimize transportation and energy costs.

Suburban setting Solution

A suburban solution for a green field site
A different solution is needed for suburban settings. The implication here is that prevailing zoning restrictions will prevent buildings higher than 3 or 4 stories. We will therefore be forced to spread out horizontally to achieve the same size of campus. The challenge will be to:

1. Cut walking distances
   We will need more creative and efficient design solutions such as compact rather than spread out residential living that will "wrap around" the common amenities so as to be as close to them as possible.
   The need for cutting walking distances will always be one of the most important objectives to effectively meet the needs of Aging in Place.

2. Create a combination of a central set of essential amenities that serve the majority of the population, and also create a certain amount of satellite ones without duplication, that are able to serve the *relatively* more remote portions of the population. This is easier said than done and will require creative design solutions.
3. Proximity to retail, shopping and entertainment is just as important, in fact more important in this solution, and will have to be addressed by either locating the CCRC campus closer to these amenities on the outside, or providing them within. The latter is a much harder solution and not always financially feasible.
4. Staff intensive services like the kitchen function will again need to be consolidated into one central facility, serving other satellite warming pantries, thus reducing staffing.
5. This challenge will translate into the necessity for more creative staffing solutions throughout, because just increasing staffing to serve a multitude of additional venues cannot be the answer because of the resulting additional cost.
6. For example, certain diverse kinds of dining venues could be provided that serve different menus from the dining services in the central dining location. The hours of operation could be staggered to a certain extent to use the same wait staff at different locations.
7. Added attention will also need to be given to better solar orientation and overall 'green design' in all its aspects, resulting in a more efficient design from an energy and resource consumption standpoint.
8. More efficient mechanical systems will need to be looked at.
9. Increased use of campus owned vehicles by residents will result in reduced parking requirements, both covered and otherwise.
10. Concierge services as explained in the urban solution would be just as desirable and welcome in this solution.

C. Aging in Place Impact on Residential Living

The smallest units will need to increase from the older 450 to 600 sq ft studio and one bedroom models to units that are 750- 850 sq ft size depending on the market, with a much higher proportion of 1 bedroom plus dens.
This is partly because they will need to meet a higher level of accessibility requirements, and partly because that is what a senior expects today.

The primary impact and relatively controversial thought would be to limit the size of the medium and larger living units to under 1300 sq ft. Beyond a point larger is no longer automatically better.
I am a fervent believer in this line of thinking for the following reasons:

a. A 1200 to 1250 sq ft two bedroom unit instead of a 1400 or 1500 sq ft one will allow us to furnish the unit with a higher level of quality amenities for the same or lower cost. The kitchens and baths could be of a higher level of design and finish. The lighting could be a higher quality level.
b. The emphasis will be increasingly towards a higher level of design with minimal use of hallways that offers maximum flexibility and openness to create the feeling of large spaces rather than smaller individual rooms accessed by hallways.
c. This will translate into a smaller overall footprint, resulting in shorter walking distances, a desirable and essential objective.
d. A smaller footprint will also translate into lower cost from a foundation and roof standpoint.
e. It will result in a more 'green' design using less material resources.

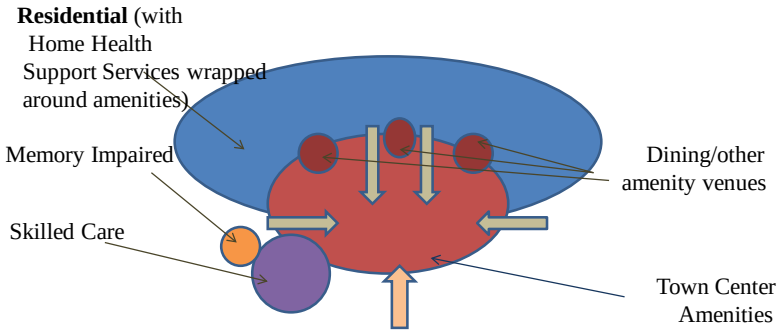
f. It will result in a smaller, more compact structure, resulting in lower overall gross areas to heat and cool, further resulting in lower energy and building costs.
g. A smaller living unit will also be easier to clean and maintain whether by the resident or later by Home Health aides resulting in lower costs for both the aides and therefore the residents.

Additional design related suggestions

a. All residential units will have to be designed with maximum thought given to Universal design, or ease of maneuverability within the apartment. This will mean more creative solutions in the kitchen and the bath as well as doorways. Unit designs will need to meet the needs of residents with all levels of physical abilities.
b. Lighting will have to be given more thought for the various needs of residents with failing eyesight resulting in warmer, softer and more indirect light.

With the passage of time there will be increased pressure on zoning regulations in prestigious suburban townships to better address the advantages and inevitability of more dense developments. This will minimize suburban sprawl in favor of more compact, efficient and taller structures.

Examples to support this argument are major metropolitan cities on the eastern seaboard such as Boston, Philadelphia, New York etc, where there are often fewer height restrictions and higher densities allowed closer to the center of town, resulting in taller and more compact structures.



The compact Suburban Model
(Shorter walking distances)

Home Health will play an increasingly important role throughout the residential and assisted living components.

a. **Couples in Transition**

More creative and flexible solutions will be expected within the unit design that allow for couples in transition, or couples where one spouse is frailer than the other. This will allow

couples to stay together longer, avoiding early separation, reducing their dependence on staff for a longer period, and also saving them valuable financial resources.
This will mean units will need to be large enough to accommodate an individual or a couple.
A 'Shared Single' design that meets all these needs is illustrated later (pg 17).

D. Impact on Skilled Care Component

At the risk of stating the obvious, this Level of Care has always been the dreaded component to which residents are reluctant to go.
Consequently, over the last ten+ years this component has given rise to many revised and creative solutions that have had varied levels of reviews and success.
But most of the older Skilled Care facilities around the country, in CCRCs as well as standalones, (and these probably constitute over 80% of the inventory), still function under the old hospital design model with long institutional corridors and 'thrones' for Nurses stations.
The biggest challenge will be to come up with creative ways to finance new, state of the art skilled care facilities with the much lower levels of reimbursement that exist today. Two ways would be to

- *Increase the residential component to act as a bigger feeder to health care.*
- *Subsidize health care by adding an additional premium via the residential entrance fees.*
- *Subsidize the Medicaid portion by adding a premium to the private pay beds.*
- *Use the profits from the Medicare and rehab components to further subsidize the less profitable components as well as the higher level of staffing required to man smaller neighborhoods.*

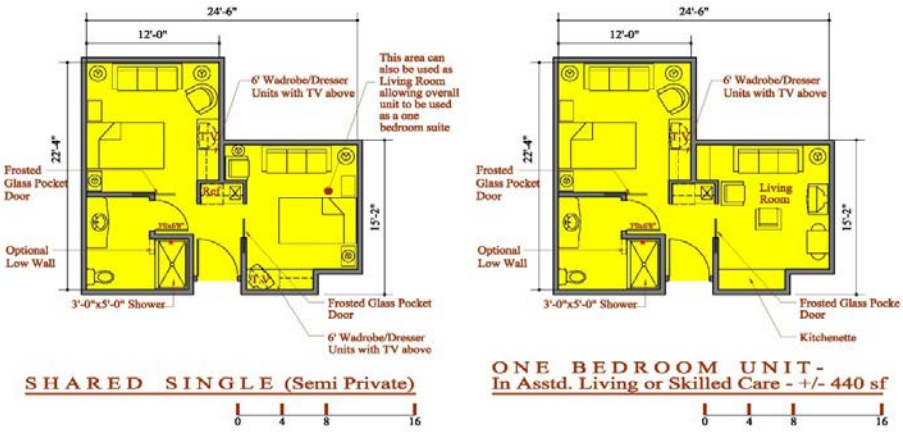
The smaller 12 to 15 bed residential neighborhood model

1. Suffice it to say that they will all need to be replaced by models that spouse neighborhoods of smaller groups of residents in a more residential setting with all private rooms.
2. This is no longer a new idea, but dependent instead, on Health Care regulations of each State with its different required ratios and staffing. Creative and efficient staffing will always be the governing criteria to solve.
3. The resident's preference however, will still always be for smaller neighborhoods of 12 to 15 residents per unit with their own living, dining and activity areas where residents are able to create their own family unit.
4. Preference for private rooms
   All residents will always prefer private rooms.
   It is not as hard to meet these needs in Private Pay and Medicare/rehab components. But with today's regulations and reimbursement rates, there is still a gap that exists between what our residents want and prefer, and what they can afford to pay for financially in Medicaid units.
   For those in Medicaid we suggest the 'Shared Singles' unit illustrated below, the closest thing to a private room without being one, with four private walls and one shared full bath from a common foyer.
   The only other option is to also provide privates for Medicaid and subsidize the additional cost through the residential component and private pay skilled care components of the CCRC as mentioned above, if the campus can afford to. *The challenge will be to make sure the subsidizing components still stay competitive in the market place.*
5. There will also be a demand for certain number of one bedroom skilled care unit suites. Again, our 'shared singles' model shown below can also be used as a one bedroom suite.
6. All bathrooms will need to be full baths with showers.

7. Nurses' station designs will need to be lot more warm and friendly and approachable by residents and not appear as formidable 'thrones'.
8. Long, institutional corridors will need to be replaced by alcoves and foyers like in a home.
9. Each room or suite will ideally have its own miniature residential identity with a recessed alcove entrance, living and sleeping areas and not feel like a hospital or institutional room.

The Shared Single

There are creative designs, like the 'shared single', that come quite close to providing the perception and feel of a private room with four private walls and one common foyer to access a common full bath. This at least, preserves the dignity of Medicaid residents. As mentioned above, there will be a greater demand for one bedroom suites even within the skilled care unit. At 440 to 480 sq ft, the shared single design is compact and flexible enough to function as a:



a. Medicaid semiprivate in skilled care
b. one bedroom unit in skilled care, and switch back and forth between a private and semi private at different times based on need.
c. one bedroom unit in assisted living
d. 'Couples in Transition' unit as identified above
e. The design also allows the flexibility of stacking. In other words, it allows the same configuration to be used as a skilled care unit on the ground floor with the same unit being used as an Assisted Living one bedroom on the upper floor, resulting in economy of construction with regards to structure, walls and plumbing.

E. Impact on Legal and Safety related Issues

Impact on Architectural Safety

a. This is an area that will be directly impacted for many reasons.
Aging in Place implies housing a progressively frailer population in a residential setting. It will translate into a need for safer buildings with more stringent fire safety and evacuation requirements.

b. This in turn could translate into added cost for the residential components. The insurance cost should however, be lower.

Impact on Staffing

c. Building a safer building for a frailer population is also a two sided sword in that there is a danger that certain States will demand a higher level of staffing support to license the structure.
d. Still open to debate is how much staffing will be effected.
   An advantage will be that all residents will be closer together, reducing travel time for staff.
   Compact designs will also allow for same staff members to perform multiple tasks.
   A disadvantage from a staffing standpoint will be that the residents will be less segregated and the frailer population will be more blended in with independent residents.

Legal Implications

e. From a legal point of view there are always liability issues that are impacted in these situations. Are we taking on more liability or are we reducing liability exposure by opening all our doors to a very advanced set of resident preferences.
f. This topic is a major one in itself and deserves a lot more study.

Conclusion

The above paper is by no means intended to represent a complete or comprehensive set of conclusions or ideas on the subject of the impact of Aging in Place on assisted living and the operation or design of our campuses.
But if it starts to scratch the surface in the areas it addresses, it has served its purpose.
The hope is that a few new thought provoking ideas will surface as a direct consequence in this fast changing and relatively young industry that will lead to better solutions that will benefit us all.

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