COMMUNITY NEEDS ASSESSMENT OF PEOPLE 60 + IN CHARLOTTE & MECKLENBURG COUNTY, NC

Report Recommendations - April 2020
INTRODUCTION

The commissioning and completion of the MECK60+ Community Needs Assessment Study is both a continuation of research on and about older adults in Mecklenburg County and a new beginning setting a new standard for replication studies in the future.

Over the last forty years, there have been periodic studies and reports on the population of older adults in the county, and the most significant of these studies have occurred essentially at ten-year intervals.

The recently established Mecklenburg County Council on Aging commissioned a major study based on a random sample survey of older adults in the county in the 1980s. The Council followed this in the 1990s with another similar study on Aging using the same questions that were asked in the previous survey.

In the early 2000s, a task force was formed, partly in response to the increasing number of older adults in the county’s population, to study how seniors were faring in the county and to try to determine what needs were not being addressed. This study, which took more than a year to complete, produced a couple of publications entitled “The Status of Seniors in Mecklenburg County” and a concomitant strengthening of the local Council of Aging to assist in carrying out recommendations from the study. The recommendations in this report were based on demographic data from the census and census-like data, a very small bit of survey data and from discussions of the task force and its sub-groups.

About ten years after the completion of the Status of Seniors study, the Council on Aging provided an update of the earlier study but again without the data that would have come from a needs assessment. At about the same time that the update was published, Elyse Hamilton-Childers a student working on her Master’s degree in Social Work degree from University of North Carolina - Chapel Hill produced a second document. This thesis was part asset mapping, data analysis, reporting from focus groups and stakeholder interviews, and an assessment of the status of service provision for older adults in Mecklenburg County. This report was data and analysis rich; however, the missing link was information that came directly from older adults that could be generalized to the total population - there was no scientific random sample survey data.

Hence, the MECK60+ is a continuation of a forty-year effort to better understand how the older adult population if getting along in the county. However, Mecklenburg County in 2018, the year this study was completed, is substantially different than it was back in the early 1980s when the first research on this topic, at least to our knowledge, was completed.

Mecklenburg County is a rapidly growing urban center with newcomers pouring into the county and region daily. Many of the newcomers are young, which means that the county’s population is younger than most of the counties in North Carolina. However, older folks are also
moving to the region to be with family, to enjoy the climate, and to take advantage of an amenity rich quality of life.

Mecklenburg County has just over a million people calling it home. The last census (2010) indicated that about ten percent of that population was 65 and over, which amounts to a population of about 100,000. Current estimates suggest that the percentage of older adults has increased marginally since 2010 with future predictions of continuing growth of the older adults far into the future.

The size of the older adult population is not inconsequential. Yet, as noted above, we have done a poor job of developing systematic information about our growing older adult population. The MECK 60+ represents a more comprehensive research model than has been the case in the past. For the first time, the research sample includes adequate numbers of African-American and Hispanic older adults to support generalizing the study findings across racial and ethnic groups. This study also includes a separate sample of caregivers, the often forgotten group that is essentially the first line and sometimes the only line or support for our older adult population who require support and assistance.

Although the intended primary focus of the MECK60+ research examines the issue of health, the study and report has an astounding array of information about many aspects of the lives of older adults. The greatest benefit of this research and report will accrue if it is repeated periodically preferably every three to five years. Longitudinal data are the gold standard. Collecting the same information at regular intervals over time can provide a better assessment of what programs are working well or not so well, which should suggest where the community needs to direct or redirect resources. In addition, this study represents a new beginning only if those in positions to make and/or change policy use this information to develop ways of assuring that older adults can live a rich and rewarding life in Mecklenburg County

Sincerely

William J. (Bill) McCoy, PhD.
Professor Emeritus of Political Science
UNC Charlotte Urban Institute
Dear Community Leader(s):

The year 2019 marks the first time in U.S. history that there are more people over the age of 60 than under the age of 18. What do we know about our neighbors in Charlotte Mecklenburg that are 60+? What infrastructure is in place? How do we mind the gap between these two factors? This holistic evaluation of people 60+ in Charlotte Mecklenburg is a crucial first step in understanding the needs of elders and caregivers living in our community. Our goal is to turn the information found from this data collection into innovative new programming, help shape policies, organize resources where needed, and create a strategic plan, that we can measure against, to see the impact we're making on citizens of the Queen City.

I would like to personally thank Dr. Julian Montoro-Rodriquez and UNC Charlotte for collaborating with Southminster in order to deliver a comprehensive Community Needs Assessment. This study aligns with our mission of being a national leader on aging and empowering elders to live their lives to the fullest. Thank you for being a good community partner and taking the time to review this very critical study. We cannot possibly do this work alone. We will be leaning on collaborators like you to help us align the needs of those 60+ with community resources and create community coalitions that build a feeling of connection among all ages, improving the quality of life for some of our most vulnerable populations.

We welcome feedback from policy-makers, aging services providers, non-profits, government leaders, and the community at large. Your support of this study not only affects the lives of adults living in Charlotte Mecklenburg today, but also demonstrates your commitment to planning a well positioned future for our younger generations to age well in their community.

Sincerely,

Ben Gilchirst, President/CEO
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COMMUNITY NEEDS ASSESSMENT OF PEOPLE 60+ IN CHARLOTTE & MECKLENBURG COUNTY, NC

Developing a Community Action Plan

Introduction

Based on the findings from the Meck60+ survey data and the feedback received from community public forums with organizations, agencies, service providers, advocates and community members, we present the following strategies and recommendations to develop a plan for action to improve the status of seniors in Charlotte and Mecklenburg County. Our suggestions address three types of domains and components: structural factors (resources, culture); process factors (engagement, information, integration of services), and social-psychological health outcomes (access to services, and health related quality of life).

The Meck60+ data findings are based on a County sample of people 60 and older (N=758) and an additional sample of family caregivers (N=127). This report includes information on the sociodemographic characteristics of participating seniors, and it describes the perceptions of seniors on the following key domains of quality of life in Charlotte and Mecklenburg County:

- **Health**
  - Functional, physical and mental health status
  - Health risk behaviors, disability and health chronic conditions
  - Medical service utilization and health care coverage
  - Health outcomes such as depression, perceived stress and well-being

- **Community Satisfaction**
  - Community attitudes towards older adults
  - Satisfaction with community services
  - Satisfaction of community participation
  - Access and use of community services

- **Family Caregiving**:
  - Profile of family caregivers
  - Health of caregivers and care-recipients
  - Use of supportive services by caregivers
  - Health outcomes of caregivers

Our recommendations attempt to identify key components of each domain with the intention of encouraging a community conversation about how to improve the status of seniors in the County and move beyond age segregation to social integration and better quality of life in Mecklenburg County. Convening a collaborative taskforce committee is our first recommendation in order to advance a senior agenda and develop a community plan for action to make progress towards attainable goals affecting residents of any age.
Section 1: Socio-Demographic Characteristics of Seniors in Charlotte/Mecklenburg County

Socio economic data for adults 60 and older in Charlotte and Mecklenburg County confirm the fundamental role of historical segregation by race and ethnicity in North Carolina. Moreover, geographical distribution of survey participants reveals a division by wealth and poverty among racial and ethnic groups. This division not surprisingly follows the same pattern found in Charlotte for all population groups, and referred to as the "poverty crescent." The geographic area of this “crescent” starts near South Boulevard and goes west, north, and east of Charlotte Center City to Independence Boulevard. Maps showing any measure of social and economic indicators clearly depict this “poverty crescent” (see Figure one comparing our sample data (N=758) representing minority participants to the County minority population data for 2016).

<table>
<thead>
<tr>
<th>Caucasians</th>
<th>African Americans</th>
<th>Latinos</th>
</tr>
</thead>
<tbody>
<tr>
<td>312 (42%)</td>
<td>324 (43%)</td>
<td>113 (15%)</td>
</tr>
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Figure 1
Older adults in our sample replicate the same segregated pattern of Charlotte and the County population regarding the “crescent” of lower standard of living and opportunities for African Americans and Latinos in comparison to Caucasians. Older adult African Americans and Latinos report lower educational level, household income, and lower home ownership than Caucasians in Charlotte and Mecklenburg County. Furthermore, among seniors, women appear to have more exposure to the deleterious experience of segregation by race, education and wealth.

**PLAN FOR ACTION**: The following discussion identifies specific strategies and action items to develop a plan to improve the quality of life and social integration of older adults in Charlotte and the County in three key domain areas: education, family ties and social connections.

We use the findings from the socio-demographic data from the Meck60+ survey study to propose the following strategies for each domain.

**Domain 1: Education**

Increasing educational opportunities for adults in our community may contribute to improved social integration and overall quality of life for seniors and families. Educational interventions in a broad sense (training, knowledge, expertise, critical thinking, etc.) are key strategies to address the negative influences of episodic or lifetime segregation and temporary exposure to low opportunities throughout the life course. Educational initiatives may provide a path towards improving social integration and quality of life of people any age in Charlotte and the County. We proposed the following strategies and action items to accomplish this goal:

**Strategy 1: The Role of Lifelong Learning**

Lifelong learning and education has the purpose of achieving personal fulfillment and development. It may occur in a formal setting, such as a school, university or corporate training, or in informal learning through self-initiated voluntary educational activities, mentorship programs or shared leisure activities. Research indicates that adults with better living conditions, increased life expectancy and greater access to primary education are more likely to attend university programs for seniors. Their main motivations to attend university programs are to gain broader knowledge, feel active, do something new, increase quality of life, and meet new people. Research indicates that adults engaged in learning programs report a significantly higher level of social interaction, personal conflict resolution, tolerant attitudes, and family communication and support (Pinazo & Montoro-Rodriguez, 2007; Montoro-Rodriguez, Pinazo & Tortosa, 2007).

Therefore, helping older adults in Charlotte and Mecklenburg County to have access to lifelong education and learning activities could be an effective approach to improve many aspects of their lives. In particular, making available lifelong learning, training and educational resources for those seniors disproportionately affected by lower opportunities, with greater health needs or subject to geographical disparities may contribute substantially to improve opportunities for a better quality of life and social integration.
The following recommendations address partially the role of “lifelong learning” and its potential to improve opportunities for all residents:

**Action 1:** Promote educational opportunities for seniors by offering learning and formal educational activities in partnership with community centers, such as public libraries, schools, recreational centers, churches, health centers, non-profit providers, and others.

**Action 2:** Establish an Osher Lifelong Learning Institute (OLLI) at Charlotte to provide non-credit short courses, study trips, and special events for adults aged 50+, offering a range of programs from one-time lectures to six-week courses, and providing opportunities to connect with others. The *Osher Lifelong Learning Institute Network* includes a group of programs supported by The Bernard Osher Foundation. The main benefits of the OLLI activities as reported by members are reflected in comments such as “mental health is stimulated by thinking new thoughts – I leave the class energized!” or “It’s easy to see that OLLI has developed a community of learners and this can only enrich our lives as OLLI participants as well as our wider community.”

**Action 3:** Promote educational programs for seniors at local community colleges and universities. Many universities offer low tuition fee programs for senior citizens returning to college. They are designed to help seniors gain skills or knowledge for a new career, or to earn credits for a degree. These initiatives are commonly called *encore programs*, or if connected with universities, *university-based retirement communities*.

**Action 4:** Develop targeted and culturally tailored educational activities to enhance the quality of life for seniors. Promotion of formal and informal education among older adults is a key factor to support seniors, promote opportunities, and empower them to be informed, self-sufficient, engaged and confident.

**Domain 2: Family Ties**

Socioeconomic data for adults 60 and older in Charlotte and Mecklenburg County indicate important differences across gender, race and ethnic groups regarding the dynamics of family structure and living arrangements. Gender differences on marital status show that most male respondents are married while the majority of women are not married. Significant marital status differences are also evident when comparing older adults from diverse race and ethnic backgrounds. Latinos (54%) and Caucasians (47%) are more likely to be married than African Americans (25%).

Significant differences by race and ethnicity further indicate that Latinos have on average more children (mean= 3) than Caucasians and African Americans (mean= 2). Finally, most adults 60 and older report living with others (57%), of that number 35% live with spouses, 16% with adult children and another 16% with their grandchildren. However as many as 43% of the County sample participants indicated that they are currently “living alone.” Isolation and possibly
loneliness appear to significantly affect older adults in the County from all racial and ethnic groups. However there are significant gender differences with more women (49%) reporting that they live alone than men (29%). Figure two below shows in the darker colors where there are concentrations of survey respondents living alone. This distribution suggests that older adults living alone, unlike many of the other patterns we have seen, are fairly evenly spread throughout the City of Charlotte with the farther out suburban areas less likely to have these clusters.

**Figure 2**
We propose the following strategy and action items to support family ties and prevent isolation and loneliness:

**Strategy 2: The role of Kinship Solidarity**

Family and kinship ties in an urban environment can serve as important instrumental and emotional resources for family members, in particular for those newcomers to the city and county. Some residents may prefer to rely on their own resources or those of their friends, but others primarily rely on their family connections. The salience of the extended family in an urban environment such as Charlotte may be more relevant for migrants from other countries, since long-distance connections, support, and family responsibilities may still play a central role in the lives of migrant members (Morris, Baldassar, Baldock & Wilding, 2007). Likewise, when individuals in poor urban environments confront poverty, a failing education system, greater policing troubles, employment constraints, and lack of affordable housing, most of the time they receive support through their siblings (Ranita, 2016). Research also indicates that interactions between siblings, under the constraints of urban poverty are complex because normative exchange of resources also demands loyalty and gratitude by making overpowering decisions for those dependent on them, which may create conflict.

Research on the impact of widowhood on kinship ties also indicates that widowed individuals report greater reliance on extended kin in times of personal crises than their married counterparts do (Anderson, 1984). Thus, it appears that people find new ways to access resources and support by re-defining the role of kinship connections and the duties associated with connectedness. Kinship relationships are a part of an active ongoing adaptation that individuals are making to their changing world.

The Meck60+ study findings suggest that seniors in Charlotte and the County experience a diverse range of family structures, kinship ties and living arrangements that may posit different challenges for them. Helping older adults to strengthen kinship ties and redefining the role of family connections could be an effective approach to improve their lives. In particular, providing support and resources for those seniors disproportionately affected by poverty, disability, health needs, loneliness and social isolation may contribute substantially to remove obstacles to quality of life and social integration. The following recommendations examine strategies to support family and kinship ties among seniors in the County:

**Action 5:** Develop programs and policies that promote social equity by assessing older adults’ family and kin connections and providing opportunities for family and kin members to stay socially connected, and sustain family solidarity. Programs and interventions aimed to strengthen kinship ties may ameliorate the weakening of kin ties and the limited ability of public agencies to promote informal solidarity.

**Action 6:** Develop life-world led social interventions to protect potentially segregated older adults by promoting kinship solidarity in different contexts (Schout & Jong, 2018). These programs facilitate group dialogue where adults participate in the decision
making process to solve problems. Adults are then part of a collective conversation with those stakeholders who are part of the situation and process (family, professionals, neighbors, community center, etc.). Families and small communities handle their problems and the role of professionals is mostly to facilitate information and expertise.

**Action 7:** Prioritize targeted interventions to address social isolation and loneliness among older adults, in particular for seniors living alone, those in low opportunity neighborhoods, widowed, or housebound by frailty and chronic health problems.

**Domain 3: Social Connections**

Social connections are central for adults to adapt to challenges as they enter into retirement and strive to be part of their communities. Social relationships offer adults the possibility to adapt to a variety of changes as they make decisions about their future including whether to retire, continue working, take on caregiving or decide to volunteer their expertise or engage in recreational activities. Thus, social solidarity and social connectedness across generations are effective goals to promote social integration and quality of life of older adults in Charlotte and Mecklenburg County. We propose to focus on intergenerational solidarity to maintain and improve social connections and relationships among older adults in the County:

**Strategy 3: The Role of Intergenerational Solidarity**

Changes in the aging process are in part responsible for the importance of intergenerational relations. The increase in life expectancy and family changes (divorce, child-bearing, female employment, widowhood) have impacted individuals and families with unintended consequences such as a large number of people living alone, feeling lonely, isolated and searching for a purpose of life (Novotney, 2019). Furthermore, today for the first time in our history, we have more people older than 50 than younger. As a result, some experts alert us of an increase in intergenerational conflict and its negative impact over the prospects to young adults. However, other experts on the longevity revolution are more optimistic and believe that if we focus on the strengths of people, we would be able to avoid conflict and find ways to solve current pressing issues from child literacy to older adult loneliness, from age segregation to social integration (Freedman, 2018).

The Meck60+ survey data clearly indicate that a large number of adults live alone (43%) with women, African Americans and Caucasians being most affected. On the other hand, Latinos appear to have larger networks, live together with other family members, and have more children than other groups. Likewise, women are more likely to be widowed, divorced or separated than men, and may experience a higher prevalence of income insecurity, isolation and loneliness. Women may be more vulnerable to the negative physical, mental and cognitive health associated with social isolation and loneliness (Novotney, 2019).
Furthermore, children and younger adults in Charlotte and the County may ultimately suffer from these demographic changes, and experience lower opportunities in the domains of education, training, work, and income stability. However, during the past few decades, longitudinal research on children experiencing adverse circumstances has showed that given the correct protective factors those children can become “caring, competent and confident” adults (Werner, 1993). The most important protective conditions for successful development of children from vulnerable backgrounds refer to having a relationship with a caring adult (mentor, teacher, coach, grandparent), belonging to a group (YMCA, church, etc.), and their personal internal beliefs and life goals.

As a result, mentoring programs were developed and empirical evidence demonstrates that relationships matter, and that consistent connections and commitment are central conditions to develop a partnership with a young adult (Freedman, 2018). Many mentors have been able to create such partnerships with young adults in which both have equal responsibility for building the bond.

With the increasing number of baby boomers and older adults with extraordinary lifelong experiences and skills (human capital) coming into retirement, there is an opportunity to offer children and young adults from vulnerable backgrounds the possibility of true connections and partnerships. These connections between generations will help also older adults to fight age segregation, isolation, loneliness, and physical and mental health troubles.

The following recommendations address specific actions to promote intergenerational solidarity and social integration in Charlotte and the County:

**Action 8:** Develop intergenerational mentoring programs to provide opportunities to connect people from different generations and enhance the quality of life of both youth and older adults (for best programs see Generations United [https://www.gu.org/](https://www.gu.org/)).

**Action 9:** Develop school programs aimed to bring together older adult volunteers and young adults ready to start a professional career path. In addition to their own expertise, older adults may provide information about future work opportunities, and work skills necessary to help young adults transition to the labor market. Older adults may help young adults to attain confidence and develop active aspirations.

**Action 10:** Integrate Senior Centers and senior programming in Charlotte and Mecklenburg County with Community Centers to increase social integration and intergenerational opportunities for people of all ages.
Section 2: Physical and Mental Health and Use of Medical Services

Self-reported physical and mental health data for adults 60 and older in Charlotte and Mecklenburg County show that most adults perceived their health as good, very good or excellent (74%). However, some experience health challenges with functional health, disability, chronic conditions, and psychological issues. For example, 39% indicated that their physical and mental health interfered with their everyday activities, and 42% reported difficulties with their ability to walk or climb stairs. In terms of serious illness problems, they report two health chronic conditions, Hypertension (65%) or Arthritis (54%). Most respondents also indicated that their mental health and wellbeing was good or excellent (85%), but about one-third of them scored above the clinical depression cut-off index as measured by the CES-D scale (Radloff, 1977). Figure three below represent the geographical distribution for participants that report good or excellent health and those reporting poor or bad health.

Figure 3

Adults 60 and older face important health equity challenges with women and minority groups consistently reporting significant health differences on a range of physical and mental health areas. Women and minority groups reported more health difficulties, chronic health conditions and depression than men and Caucasians. Latinos reported higher levels of stress and lower mental health than Caucasians and African Americans. Figure four below represent the
geographical distribution for self-reported days of physical and mental health trouble for participants during the previous 30 days.

**Figure 4**

Regarding health care coverage and medical service utilization, most adults reported having health care coverage (92%), but only 54.1% had access to vision care, 45.1% to dental services and 39.2% to mental health services. During the past year, 96% of the respondents visited their doctor/primary physician and 92.2% used prescription drugs, but only 60.6% visited a medical specialist and 17.2% a mental health specialist.

In addition, over two-thirds of adults reported having a dental (64%) or an eye exam (70.8%). Finally as many as 40.5% of respondents reported having visited the hospital/emergency room/urgent care during the last 12 months. The data on health service utilization indicate significant health differences on medical service use by racial and ethnic groups, with Caucasians visiting their medical doctor, specialist, or mental health professional more often than African Americans and Latinos.

The distribution of the data appears in Figures 5-6 below shows the percentage of the participants’ self-reported use of medical services during the last 12 months and the self-reported health care coverage.
Figure 5

Self-Reported Use of Medical Services Last Twelve Months

- Visit Doctor: 96.0%
- Visit Medical Specialist: 60.6%
- Visit Mental Health Specialist: 17.2%
- Visit Emergency/Hospital: 40.5%
- Dental Exam: 64.0%
- Eye Exam: 70.8%
- Get Prescription Drugs: 92.2%

Figure 6

Self-Reported Health Care Coverage

- Any Health Care Coverage: 92.0%
- Prescription Drugs Coverage: 82.2%
- Vision Coverage: 54.1%
- Dental Coverage: 45.1%
- Mental Health Coverage: 39.2%
**PLAN FOR ACTION**: Successful aging models incorporate proactive actions that individuals take to adapt to age related changes and stressors to optimize their health (Kahana, Kahana & Lee, 2014). These models include resources (financial resources, social support), internal dispositions (self-esteem, coping strategies, optimism, etc.) and proactive behavioral adaptations (health promotion, proactive illness management) as strategies to help people master the challenges of chronic illness, social losses, environmental barriers, and poor wellbeing and quality of life. The figure seven below represents the comprehensive Preventive Corrective Proactive model of successful aging used for this section.

**Figure 7**

![Successful Aging: a Comprehensive PCP Model. P-E3= Person-Environment Fit (Kahana, Kahana & Lee, 2014)](image)

The model attempts to identify the main conditions that affect the quality of life of older adults. It includes sociodemographic conditions and examines stressor factors that influence quality of life while controlling for resources and proactive behavioral adaptations. We focus on the need to provide high quality person-centered care by identifying the set of individual conditions that are relevant for each adult. As the model indicates, we will pay close attention to those moderating factors (resources, preventive and corrective adaptations) that contribute to ameliorate the negative influence of cumulative stressors.
The following recommendations identify specific strategies and action items to promote health and quality of life of older adults in Charlotte and Mecklenburg County:

**Domain 4: Person-Centered Care**

The quality of medical care has an impact on the health of older adults. Current models of person-centered care incorporate best practices of care while making an effort to integrate the rights, views and values of people. The structure of such models requires educational training for professionals, collaboration among health professionals, community resources, teamwork, supportive environments, integrated use of technologies, and evaluation of care outcomes for accountability and quality of services (Santana, Manalili, Jolley, Zelinsky, Quan & Lu, 2018). In addition to the health system, other social, behavioral and psychological determinants of health are central to high quality person-centered care.

Based on the health data from the Meck60+ survey we examined how available resources promote proactive behaviors and contribute to ameliorate the negative impact of stressors on health. For example, external resources such as sufficient financial assets and available social support can be enabling factors for older adults to ensure access and use of health services (Smith, Cichy & Montoro-Rodriguez, 2015). External resources may help older adults to better manage and cope with disability, serious illness and chronic health conditions. Other individual dispositions such as self-esteem or positive coping may contribute to moderate the negative impact of stress. Both types of resources could motivate adults to engage in proactive adaptations (such as plans, setting goals, attending health education programs, taking control of situations, etc.) resulting in improved purpose of life and overall wellbeing (Kahana, Kahana & Zhang, 2005). We propose several strategies to improve the quality of person-centered care:

**Strategy 4: The Role of Coordinated Care**

There is strong support suggesting that holistic coordinated care delivery facilitates access to services and optimizes the health of older adults. Focusing on resources, adults who are able to use personal resources (such as financial resources, social support or self-esteem) to take care of their health and access medical services, may experience better health outcomes in comparison to adults lacking such resources. The Meck60+ data show that as many as one third of older adults are affected by low levels of financial resources, greater depression, chronic health conditions, and limited access to medical services. Older adults with limited resources (women and minorities) may also face challenges gaining access to and coordinating medical services. In fact, many of them may rely on emergency services at hospitals or urgent care services (40%). We proposed the following recommendations to promote person-centered coordinated care for seniors and their families:
**Action 11:** Create effective care teams that include geriatric healthcare professionals such as doctors, nurses, pharmacists, physician assistants, social workers, and many others with unique skills for evaluating and managing health care plans for adults.

**Action 12:** Provide training for health organizations and professionals about best practices on person-centered care and implement standard protocols to assess older adults’ resources (social support, coping abilities, etc.) to develop a plan of care that includes coordination of medical, social and behavioral services.

**Action 13:** Engage with older adults’ advocates such as family caregivers, friends and neighbors, health navigators, church members, and other support systems to offer support services from multiple health dimensions (social, behavioral, psychological) and incorporate their efforts as part of the team.

**Action 14:** Provide access to health care services for uninsured adults 60 and older. Access to mental health services needs to be a priority.

**Strategy 5: The role of Proactive Behavioral Adaptations**

Person-centered coordinated care for older adults with health limitations, disability or serious illness recommends engagement with individuals and their families to develop personalized care plans and programs to support optimal health. Programs focused on addressing resources may help older adults to better adapt to their environment and motivate them to be active participants in improving their health. Both internal and external resources may facilitate behavioral adaptations (such as attending health promotion programs, engaging in physical activities, or managing chronic health illnesses) that have been associated with better health. Enacting proactive adaptations is an effective strategy for older adults to improve resilience. It helps adults with chronic conditions and/or persons with disability to cope with their health challenges (Kahana, Kahana, Kahana & Ermoshkina, 2019).

Behavioral adaptations may bring better control and self-determination of older adults to improve their health. Behavioral adaptations such as health promotion and offering help to others address potential aging-related stressors in health. For example, engaging in healthy lifestyles requires other preventive actions such as exercising which may help to reduce the progression of chronic health troubles (Kahana, Kahana & Lee, 2017). Similarly, other behavioral adaptations such as helping others or volunteering may have a positive impact on personal affect and greater sense of work.

When older adults experience normative stressors, certain corrective behavioral adaptations are effective strategies to cope with these stressors (proactive help-seeking, environmental modifications or pro-active health managing) and serve as compensatory or corrective mechanisms to reach optimal functioning.
Data on health risk behaviors from the Meck60+ survey showed that more than half of Caucasian adults reported having at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor. On average older adults reported drinking alcohol about 4 days a month. Likewise, levels of exercising activity were very limited for low-and-high intensity exercising, in particular among Latinos.

Regarding health outcomes, about one-third of older adults reported level of depression above the cut-off clinical depression score. These data suggest that professionals need to consider the use of preventive or corrective motivational behavioral strategies to improve lifestyle health risk behaviors among older adults. The following recommendations and action items focus on the use of proactive behavioral adaptations:

**Action 15:** We recommend training for medical professionals and health service providers to recognize the connection between specific individual resources and effective behavioral adaptations to promote optimal health among older adults.

**Action 16:** We recommend prioritizing on the health needs of women and minorities with health limitations, disability and chronic health conditions. Identify their resources and suggest effective preventive and corrective behavioral adaptations for older adults.

**Strategy 6: The role of Comprehensive Support Services:**

Community support services are often not coordinated making it difficult for professionals and adults to be aware of them, and use them when needed. Medical care services and non-clinical programs also need to be coordinated so that professionals know what services are available. Based on the data from the Meck60+ survey the integration of community programs and services for adults with chronic health conditions and disabilities needs to be a priority for Charlotte and Mecklenburg County. The following are recommendations aimed to improve integration of resources and equity of access to services:

**Action 17:** Develop a Charlotte and Mecklenburg County coordinated care network to electronically connect older adults with health limitations to available community resources.

**Action 18:** Support the implementation of the first statewide coordinated care network NCCARE360. It provides a coordinated, community-oriented, person-centered approach to delivering care in North Carolina.
Section 3: Community Quality of Life

Adults aged 60 and older in the Meck60+ survey rated Charlotte and Mecklenburg County as a good and excellent place to live (84.1%) or to retire (75.8%). They also recommended living in the County to others (83.8%) and planned overwhelmingly to remain in the County throughout their retirement (88.3%). However only about half of them endorsed as good or very good the County’s “sense of community” (53.2%) and fewer adults endorsed positive views about the County’s “respect for older adults” (38.4%), “acceptance of diverse older adults” (36.4%) and “community safety” (33.1%). Figure 8-9 show ratings for the County quality of life.

Figure 8

![Chart showing ratings for Charlotte/Mecklenburg County](chart1)

Figure 9

![Chart showing ratings for Charlotte/Mecklenburg Community Attitudinal Values](chart2)
Overall, ratings for community services in Charlotte and Mecklenburg County were mixed, with only about two-thirds of participants indicating that services are good or excellent (64.2%), and very few rated good or excellent the availability of “community quality Mental Health Services” (23.5%). Figure 10 shows ratings for community services in Charlotte and the County.

**Figure 10**

![Ratings for Community Services in Charlotte/Mecklenburg](image)

Most adults indicated that it is easy or very easy to find productive or meaningful activities or volunteering work in the County (80%). However, only about one-third of participants (32.5%) reported to have volunteered in activities for older adults in the County during the previous year. Few older adults declared that they have attended local elected officials or local public meetings in the County (28.6%), and only half of participants reported that their voices are sometimes or always heard in Mecklenburg County (50.6%).

About two-thirds of seniors in the sample reported that they are “informed” or “very informed” about community services (62%) and indicated being familiar or very familiar with them (60%). The use of community services was highest for Church attendance (70.6%), followed by use of Public Libraries (55.3%), Parks and Recreation Centers (50.5%), and the Farmer’s Market (47.5%).

However, less than one-third of participants reported attending Senior Centers (29.9%), Nutritional Sites (26.1%), Community Centers (25.2%), using Public Transportation (25.1%), School programs (24.8%) or the Social Security office (22.2%). Adults reported the lowest use of services for Veterans Administration services (8.3%), Legal Help Services (7.8%), Charlotte Housing Authority (5.2%), Adult Day Care Centers (3.4%), and Mental Health Services (3.4%). Figures 11-12 show percentage of older adults using community services.
Figure 11

Use of Community Services/Programs Last 12 Months

- Church Activities: 70.6%
- Public Library: 55.3%
- Parks & Recreation: 50.5%
- Farmer’s Market: 47.5%
- Senior Center: 29.9%
- Nutritional Site: 26.1%
- Community Center: 25.2%
- Public Transportation: 25.1%
- School Programs: 24.8%
- Social Security: 22.2%

Figure 12

Use of Community Services/Programs Last 12 Months

- Emergency Services: 18.6%
- Health Emergency: 16.1%
- Department of Social Services: 14.8%
- Veterans Administration: 8.3%
- Legal Help Services: 7.8%
- Housing Authority: 5.2%
- Adult Day Care Center: 3.4%
- Mental Health Services: 3.4%
As anticipated, there were significant differences on service utilization across gender and race/ethnic groups. Women were more likely to attend Church, Senior Centers and Nutritional sites than men were. Caucasians reported higher attendance to Public Libraries than minority groups, and African Americans exhibited higher attendance to Church activities, Senior Centers and Nutritional programs than other groups. Latinos expressed a greater preference for Parks and Community Centers.

**PLAN FOR ACTION:** Research evidence indicates that both social and physical conditions of communities (such as programs and services, safety, transportation, respect for diversity, etc.) affect significantly the quality of life and health of older adults (Greenfield, Oberlink, Scharlach, Neal, & Stafford, 2015). During the past decades “Age-Friendly initiatives” (AFI’s) have emerged to transform communities by creating supportive environments for people of all ages. The United Nations in 2002 endorsed as a priority the need to design supportive built and social environments for older adults, and the World Health Organization (WHO) and other organizations (such as ARPP, 2014) have developed a set of key features for Age-Friendly and Livable cities (2007: 2013).

These initiatives emphasize making improvements to the physical and social environment (such as universal design, affordable housing, space for recreational activities, integrated transportation, safety, respect and inclusion of older adults, participation in civil activities, opportunities to volunteer and work, and access to services).

The aim of AFI’s is to develop supportive environments that enable adults to age in place, grow healthy with their family, friends and neighbors, participate in their communities, feel valued, actively engage in caring for others, and supported with services that respond to their needs. The growing number of older adults requires that community leaders, organizations and residents identify urban and community features that ensures the inclusion and full access to urban spaces, structures, and services of residents of any age. Ultimately, efforts to ensure inclusion of older adults in the larger urban environment will empower them to contribute more to their families and friends, serve thoughtfully as human capital resources, and promote social mobility and age integration.

The following discussion identifies specific strategies and action items to improve the quality of life, social integration and access to services for older adults in Charlotte by developing urban age-friendly/livable environments. We use the information from the Meck60+ survey on community life satisfaction to discuss strategies for work towards an age friendly community.

**Domain 5: Age-Friendly/Livable Initiatives**

Ecological theories in gerontology explore to what extent physical, social and emotional factors determine overall well-being. Kurt Lewin’s field theory (1946) proposes that people and their
surroundings depend closely on each other, and that behavior is a function of the person and environmental conditions. Lewin recommended starting by examining the situation as a whole to understand the atmosphere or climate of the situation and identify perceived specific barriers and opportunities to reach desired goals. Ecological theories suggest that when older adults are able to adapt to changing environmental demands to take care of their needs, they will avoid maladaptive behavior and experience positive health outcomes (Lawton & Nahemov, 1973). Age-Friendly environments are then associated with individuals’ positive outcomes.

Furthermore, comprehensive environmental social systems theory examines the interplay of individual needs, capacities, and supportive environments within and across various social systems at the individual, social, institutional and cultural contexts (Bronfenbrenner, 2006).

The World Health Organization defines an age-friendly community as one in which “policies, services, settings and structures support and enable people to age actively” (WHO, 2007). This comprehensive definition acknowledges the urgency to adapt urban environments to the needs of the increasing number of older adults living in the city of Charlotte, in particular for those experiencing disability, isolation and loneliness, functional or cognitive health limitations. Environmental factors would include the built and natural environments, access to urban space, supportive programs and services, leading ultimately to better equity, economic prosperity, age integration, community engagement and social life. We propose several strategies and action items to improve age-livable and age-friendly quality of life for older adults in Charlotte.

**Strategy 7: The role of Supportive Environment**

The Mecklenburg County Department of Social Services (DSS) has taken the lead to develop a comprehensive Age-Friendly plan for Charlotte and the County based on the World Health Organization framework. They have conducted an initial analysis to assess and identify gaps in aging and accessibility to services in order to propose structural or programmatic changes to enhance the quality of life of older adults. After evaluating data on available services, amenities and programs, they conclude, “it is clear that the community has made several accommodations for their older residents. It is also evident that there still is significant activity to do, to be considered age-friendly and prepare for the increase of older adults.” (DSS, Age-Friendly Gap Analysis, 2019). The new data from the Meck60+ survey may help us in identifying priorities, and strategies to make progress towards a County Age-Friendly community.

In the **domains of respect and inclusion, social and civic participation, communication and information**, the findings indicated that while older adults endorsed overall positive views of Charlotte as a place to live and retire, they were less positive about the level of community support for seniors. Many older adults reported unsatisfactory ratings for “sense of community”, “openness and acceptance towards older adults of diverse backgrounds,” or “respect for older adults,” and expressed dissatisfaction with “community safety.” Regarding community participation and activities, adults indicated that it is easy or very easy to find
productive activities or volunteering work, but only few reported to have volunteered in activities for older adults in the County during the previous year (32.5%). Few adults also declared that they have attended local elected officials or local public meetings in the County (28.6%), and only half of participants reported that their voices are sometimes or always heard in Mecklenburg County.

We propose the following recommendations to improve older adults’ respect and inclusion, social and civic participation, communication, and information:

**Action 19:** Promote a community conversation to reframe the national dialogue about aging and ageism by reducing misperceptions and stereotypes leading to discrimination against older people in many areas of life, from health care, to housing or the workplace (Sweetland & O’Neil, 2017).

**Action 20:** Provide media and social campaigns to correct popular myths and misconceptions about older adults while highlighting the importance of positive views when communicating about aging, and focusing on solutions for people of all ages.

**Action 21:** Create a county Senior Affairs Commission (SAC), under the leadership of the Area Agency on Aging, representing seniors across the County to advise and provide information to the Board of County Commissioners and the Division of Aging and Adult Services (DAAS) on matters related to older persons.

**Action 22:** Schedule community activities across the county to raise awareness of aging, portray stories and narratives of older adults, highlight their contributions to the community, and inform them about programs and interventions to change outcomes. Events such as engaging with residents to participate on an Aging Awareness Art/Photo Competition, organize health fairs, and community forums to discuss policies, services, settings and structures to support and enable people to age actively may help to provide context to the lives of adults.

In the **domain of services** the Meck60+ data also indicated that most participants are informed and familiar with community services, and rated them as good or excellent. As expected, older adults use traditional services such as attending Church activities (70.6%), but only half of them use Public Libraries, Parks and Recreation facilities or the Farmer’s Market (Chart 112). About one-quarter of participants reported using Senior Centers, Nutritional Programs, Community Centers or Public Transportation. Only very few participants reported using affordable housing under the Charlotte Housing Authority (5.2%), Adult Day Care Centers (3.4%) or Mental Health Services (3.4%). Regarding the quality of community services and service utilization, we offer the following recommendations:

**Action 23:** Work with community organizations offering services used by older adults, to provide information and deliver healthy active programs for adults, in particular to
reach out to women and minority groups. The data indicate that African Americans and Latinos engage in Church activities more often than Caucasians.

**Action 24:** Advocate for an expanded array of activities and engagement opportunities in the County library system. Many older adults favor the use of Public Library services, with Caucasians reporting a higher utilization of Public Libraries (60%) than African Americans (52%) and Latinos (34%). Some Libraries are already providing such services. Public Libraries may be excellent places to reach out to older adults and offer social, educational or civic activities, such as early voting events, technology, health literacy, retirement planning and legal services.

**Action 25:** Evaluate the quality and availability of Mental Health services and examine service use barriers and best practices and strategies to facilitate access to Mental Health programs by older adults and their families in the County.

**Action 26:** Integrate Senior Centers and Nutritional programs with Community Centers, and offer programming for people of all ages. Other health services such as community health and mental health services may also be more accessible at Community Centers.

**Strategy 8: The role of Supportive Physical Environment: Transforming Infrastructure**

Several domains of the WHO’s Age-Friendly initiatives focus on the physical or built environment of cities and communities, with the goal of making each aspect of it accessible to all residents. As stated in the DSS Gap Analysis report (2019) Mecklenburg County is committed to improve the built environment in areas such as the outdoor spaces (parks, greenways, safe streets, sidewalks, access to buildings), transportation (access to places for those who do not drive), and housing (supporting aging in place). As the County prepares to assess these domains, the data from the Meck60+ survey may provide additional insights to transform infrastructure to improve age-friendly livability in Charlotte and the County.

Regarding the outdoor spaces, half of older adults in our sample indicated using Parks and Recreation Centers or the Farmers’ Market (47.5%) during the past 12 months. Older adults, in particular minorities, also reported low participation in physical activity, with only one third of Latinos engaging in low-intensity exercise and fewer engaged in high-level intensity exercise (12.7%). Most seniors reported not engaging in high-level intensity exercise, with women and minority older adults reporting lower level of exercise than men and Caucasians. In addition to low use of open spaces and physical activity, older adults indicated very low satisfaction with the level of safety in the community, with only one-third of adults reporting that their “feelings of safety of the community” were good or excellent.

When it comes to transportation there is widespread consensus about the need to improve transit options, provide more access, reduce cost and coordinate agencies (DSS Gap Analysis report, 2019). Participants in the Meck60+ survey reported very low frequency of use of Public
Regarding housing infrastructure similar challenges are present with the increasing cost of home prices and the rental units, the limited affordable housing apartments available to residents, the low level of home ownership among female and minority older adults, and the need to renovate home spaces to make them more functional to the needs of those with disability and chronic conditions. We suggest several recommendations to transform infrastructure that serves people of all ages in the County:

**Action 27**: Support the Age-Friendly initiative by the Mecklenburg County Division of Aging Services (DSS) to improve the built environment and identify actions to make outdoor spaces, transportation and housing age-friendly.

**Action 28**: Create a dissemination and information campaign to increase awareness, knowledge and use of outdoor spaces, expand the transportation network, and seek grants and programs to renovate home environments, increase affordable housing units and community safety.

**Action 29**: Work with real estate developers to provide information about Universal Design Age-Friendly solutions in new construction and renovations of existing housing stock. Universal Design facilitates older adults remaining in their homes longer, which allows them to remain in their interconnected community.

**Strategy 9: The role of Integrated Care Services**

During the past decades, there have been numerous programs and interventions to help individuals to maintain their physical and mental health, avoid isolation, exclusion, and poverty among other outcomes. However, the exponential number of older adults with multiple needs due to disability and limitations with chronic health conditions represents a challenge to the provision of person-centered care. To obtain better outcomes, individual care plans using an integrated network of services deliver a holistic perspective that includes individuals and their socio-cultural and organizational environment.

Comprehensive environmental social systems theory such as social network analysis or developmental social ecology examine the interplay of individual needs, capacities, and supportive environments within and across various social systems at the individual, social, institutional and cultural contents (Woolcott, Keast, Tsasis, Lipina & Chamberlain, 2019; Bronfenbrenner & Ceci, 1994).

When professional boundaries or silos limit the interplay with services from different systems, older adults with multiple needs may not receive optimal care. To accomplish this task we need a culture of care that favors collaboration across multiple organizations and sectors. The focus is not only to eradicate a health problem but also to consider the individuals’ characteristics and their specific social and environmental determinants of health.
The data findings from the Meck60+ survey revealed that about one-third of older adults report disability and chronic conditions. It is not clear how their care needs are supported by services, since many older adults reported significant shortcomings in levels of use for mental health services, and other community services. We propose the following recommendations to raise awareness about new initiatives that emphasize localized networks of support, integrative care services, and social and environmental connections that can optimize health outcomes for individuals living in the community:

**Action 30:** Promote aging in place initiatives such as the Charlotte Village Network founded in 2015 by older adult volunteers in the South Charlotte area. The CVN is a social and non-profit support organization. Villages are grass-roots organizations that, through both volunteers and a small paid staff, coordinate access to affordable services including transportation, health and wellness programs, home repairs, social and educational activities, and other day-to-day needs enabling individuals to remain in their homes, connected to their community throughout their later years. The Village Movement represents an innovative approach to life engagement for – with – and by older adults.

**Action 31:** Promote multi-agency collaboration to create synergies for new community resources and services. Community Health Clinics in collaboration with local churches/faith community, health providers, educational institutions, and other community agencies need to discuss ways to support residents/members of all ages by pulling together their assets/resources (volunteers, grants, professionals) and design specific neighborhood programs to support needed services such as transportation, day care centers for children and adults, intergenerational programs, etc.

**Action 32:** Support integrative care services by discussing with health care organizations and social service providers ways to provide information about services and facilitate access to them. For example by creating a County coordinated care network to connect electronically older adults with disability or chronic health conditions to available community resources.

**Action 33:** Support the implementation of the first statewide coordinated care network NCCARE360 that promotes a coordinated, community-oriented, person-centered approach to delivering care in North Carolina.

**Action 34:** Consider geographic distribution of community services infrastructure (Hospitals, Emergency Services, Mental Health Services, Parks and Recreation Centers) to improve access and use among older adults.
Geographical equity requires an effort to locate community services in the midst of individuals who need and use them the most. Figure 13 below depicts geographical distribution of users of hospital/emergency rooms and proximity to hospitals in the city. It shows lack of integration between users and locations of hospitals/emergency rooms.

**Figure 13**

![Hospital/Emergency Room Usage: Meck60+ Participants](image)
Section 4: Family Caregiving

This section offers information about family caregivers based on a sample of 127 participants from the Meck60+ study in Charlotte/Mecklenburg County. Caregivers reported on the conditions under which they provide care to loved ones and identified social, psychological and health related impacts related to their caregiving, including outcomes such as stress, depression, burden or well-being. Caregivers were interviewed by phone with a Random Digit Dialing sample (N= 81, 63.8%) and with face-to-face personal interviews (N= 46, 36.2%).

Profile of caregivers: Family caregivers reported an average age of 62.3 years, ranging from 19 to 86, with one-third of them (N= 38) being younger than 60. As expected most of the caregivers were women (N=80, 69.6%) as compared to men (N=35, 30.4%), and most of them are minority caregivers (African Americans and Latinos) (N= 70, 55.1%) rather than Caucasians (N= 57, 44.9%). Less than one quarter of caregivers (24%) did not complete high school, and about half of the caregivers (48%) completed a Bachelors or higher degree.

The average family annual income reported by caregivers in the sample was in the range of $45,000 to $59,000; however, Caucasian caregivers reported higher level of income ($60,000 to $74,999) than minority caregivers ($30,000 to $44,999) did.

Most caregivers provide care to parents (N=54, 43.5%) and spouses (N=52, 42%), followed by adult children and others (N=18, 14%). About half of the caregivers report that they have been providing care between one and five years (46.8%), and one third are providing care for more than six years. Only a few reported providing care for less than a year (22%).

Caregiver and Care-Recipient Health: A minority of caregivers (22.8%) indicated that their own health interferes with their ability to provide care. Similarly, more than one-third of caregivers reported that they had a reduction/termination of work due to their caregiving duties (31%). On average, the age of the care-recipients as reported by their caregivers was 77.2 years, ranging from 60 to 100, and caregivers were caring for more women (60%) than men (40%).

Caregivers indicated that two-thirds of their care-recipients are afflicted on average with three chronic health conditions (60.6%). As indicated in Figure 14, the most prevalent chronic health conditions among care-recipients were hypertension (66.9%) and arthritis (58.9%). About half of caregivers provide care to dementia relatives (48.8%) followed by depression (34.9%), diabetes (37.7%) and cancer (17.6%).
Caregivers assist with moderate to high levels of care (Mean = 19.6, SD = 8.4; range = 0 to 30) to their loved ones on an index of assistance with activities of daily living (IADL/ADL).

**Figure 14**

**Care-Recipient Chronic Health Conditions**

- Hypertension: 66.9%
- Arthritis: 58.7%
- Dementia: 48.8%
- Depression: 34.9%
- Diabetes: 31.7%
- Cancer: 17.6%
- Hearing loss: 32.5%
- Visual Impairment: 16.7%
- HIV: 1.6%

**Figure 15**

**Caregiver Help to Care-Recipient with ADL/IADL**

- Going Shopping, Doctor: 90.6%
- Preparing Meals, Laundry: 88.9%
- Bills, Checks, Financial: 84.3%
- Managing Services: 79.0%
- Medicines, Bandages: 73.8%
- Dressing, Eating, Bathing: 65.3%
The type of help provided by caregivers to their loved ones consists primarily of instrumental activities of daily living (see Figure 15) such as going shopping or visiting the doctor (90.6%), and preparing meals and laundry (88.9%). Caregivers also assist with cognitive tasks such as financial matters (84.3%), managing care services (79%); support with clinical care (73.8%) and personal activities of daily living such as dressing, eating, bathing (65.3%).

**Caregiver Network of Support:**

**Help from Family and Friends:** Caregivers reported how much time each week family members and friends spent assisting with caregiving on personal care, household chores, transportation, shopping, managing finances or arranging for care. More than one-third of caregivers indicated that they do not receive any help (37%) from family and friends. Also on average family and friends provide between one and two hours of help a week with the care-recipient.

**Count on People for Help:** Caregivers self-reported a high level of support from others willing to assist with care, emotional support and helping with caregiving. Half of the caregivers indicated having a mean average score of "9" on a scale with a range of 3 to 12. About two-thirds of caregivers indicated that they get help or support from others in caring for their loved ones (60%) and report that that they are somewhat, quite or very satisfied with the support from others (82.8%).

**Respite Available to Caregiver:** Informal respite for caregivers is available only for two-thirds of them. Caregivers indicated that they have someone else able to provide care to the care-recipient if needed (58.9%). Likewise, another one-third of caregivers reported using formal respite during a week (57.9%). However, about 42.1% of caregivers do not use any formal respite services. Most caregivers are satisfied with the use of their respite time (78.6%).

**Caregiver Health Outcomes:**

**Caregiver Depression:** The average score of depressive symptoms among caregivers measured by the CESD depression scale was 17.3 (SD = 6) with actual scores ranging from 9 to 34. We used the ten-item CESD measure with a 4-point scale for each item where “1” was rarely and “4” most of the time (total scores ranged from 4 to 40). About half of the caregivers scored right at the clinical cut-off score (Median = 16). All other caregivers (48%) scored above the clinical cut-off score. Caregivers displayed a higher level of depression than adults 60 and older in the County (Mean= 15.1; SD= 5.3). Additionally, a higher proportion of caregivers scored above the median on this scale than did the participants in the Meck60+ sample (48% versus 30%).

**Caregiver Stress:** Caregivers reported a moderate level of perceived stress because of their caregiving rated on a scale from 1 to 10 (Mean = 5.4, SD = 2.9).
**Caregiver Strain:** Family caregivers reported moderate levels of strain (Mean= 12; SD= 7.5; Range= 0 to 30). Caregivers reported on three measures of hardship/strain related to their caregiving activities (financial hardship, physical strain and emotional strain). Caregivers reported significantly higher levels of emotional stress (Mean= 5) than physical (Mean= 3.9) and financial strain (Mean= 3.4).

**Caregiver Burden:** Caregivers reported on fourteen items related to three dimensions of caregiver burden. Items asked caregivers about changes for time they had for themselves, level of tension and perceived caregiving demands. Caregivers reported a high level of caregiving burden across the three dimensions (Mean= 44.7; SD= 9.5) however caregivers were most concerned with having less time for themselves (Mean = 19.7; SD= 4).

**Caregiver Positive Aspects of Caregiving:** Caregivers reported positive aspects of caring for their loved ones using six items measured on a scale from 1 to 5 about how they feel about helping and taking care of their love ones. Caregivers exhibited high levels of positive feelings about their experience as caregivers (Mean= 24.9; SD= 4.8). More than fifty percent of caregivers scored 26 or higher on the overall index of positive aspects of caregiving.

**Caregiver Family Conflict:** Caregivers indicated how often they felt that they did not get along with other family members, were resentful of other relatives, or felt that relatives did not recognize their caregiving efforts (on a scale from 1 to 5). Caregivers exhibited moderate levels of family conflict (Mean= 6.3, SD= 4.2). More than fifty percent of the caregivers scored 7 or higher on the overall index of family conflict.

**Caregiver Perceived Stigma:** Caregivers were asked if they were embarrassed over behaviors of the care-recipient; if they were uncomfortable having friends at home in the presence of the loved one; if they were anxious about taking the care-recipient to public places; or, if they were not willing to let others know about the care-recipient. The overall “stigma” index indicates a low to moderate level of stigma among caregivers (Mean = 5.6; SD= 4.3; Range= 0 to 18).

**Caregiver Intention to Place Care-recipient in Nursing Care:** Most caregivers (65.3%) indicated that they would not move the person they are caring for into a nursing facility given his/her current health. Only about 14% of caregivers indicated that they probably or definitely would move their care-recipients into a long-term placement. However, the number of caregivers who would probably/definitely consider moving their loved ones into nursing care increases if their current health and mobility were to worsen (36.9%). About a quarter of caregivers (26.2%) have sought information about Nursing Home placement in the previous few months.

**Perceived Care-recipient Neglect or Abuse:** Caregivers rated their perceived risk of neglect and abuse of the care-recipient by indicating the risk of anyone neglecting care for the care-recipient (38.5%), the risk to force them to do things that did not want (36.6%), take money away without permission (35%), and making the care-recipient feel bad (25.2%).
**Medical and Financial Planning:** Caregivers reported on medical and financial advance planning tools for their care-recipients. Most caregivers indicated that their loved one has a legal guardian or power of appointment for health related issues (67.5%), medications (68.3%), financial issues (69%), and to manage their estate (65.3%). Additionally, more than half of caregivers reported that the care-recipient has an Advance Medical or Psychiatric Directive (53.2%), a Durable Power of Attorney (64.8%), or a Last Will and Testament (62.7%).

**Caregiver Service Use:** Caregivers reported their frequency of use of medical and community services for the past 12 months (Figure 16). Most of them visited the doctor (86.9%) and more than one-third went to a Hospital emergency room (34.1%). The use of community services was very low ranging from Senior Centers and Adult Day Care (18%) to short term nursing care (6.6%).

Figure 16

![Caregiver Service Use in the Past 12 Months](image)

Caregivers also reported low levels of use of paid services in the last twelve months, such as homemaker services (30.7%), home health services (23.6%), non-medical personal care (24.4%), and adult day care services (15.7%).

Likewise, caregivers reported receiving low levels of support from community agencies offering services such as information about community services (38.4%), help getting community services (24.1%) or educational or training help to provide care (33.6%). Additionally, over one-third of caregivers indicated that they had received advice to develop a plan of care for their care-recipient (38.4%) and information to care for people with Alzheimer’s or dementia (32.8%). Only about a quarter of caregivers reported obtaining services from community agencies to help them to handle challenges of caregiving (24.1%).
Dementia Caregivers:
This section compares dementia caregivers (N= 62) to caregivers providing care to adults with disabilities and/or chronic health conditions other than dementia (N= 65). Dementia caregivers reported that their care-recipients have significantly higher comorbidity level, chronic health conditions (Mean= 3.7) than non-dementia care-recipients (Mean= 2.3). We present data across groups regarding supportive services, health outcomes and service use:

a) Dementia Caregivers Supportive Services:
Dementia caregivers differed significantly from non-dementia caregivers in their level of available support regarding the level of needed help from people around them, their ability to talk about their feelings and challenges and the need to obtain information to get help. The level of support to count on people was significantly higher among non-dementia caregivers (Mean= 8.9) than for dementia caregivers (N= 7.7) on the dimensions of help. Availability of informal respite was also significantly higher for non-dementia caregivers (34.7%), than for dementia caregivers (21%).

Figure 17
Care-recipient Needs and Support by Dementia

![Bar chart showing care-recipient needs and support by dementia caregivers.](image)
On the other hand, dementia caregivers use more often Adult Care services (Mean= 6.1) than non-dementia caregivers (Mean= 0.4). In addition, dementia caregivers on average use more paid Adult Care Respite services than non-dementia caregivers.

Not surprisingly dementia caregivers reported on average a much higher level of hours of care per week (Mean= 42.8) than non-dementia caregivers (Mean= 25.5).

The dementia prognosis of care-recipients affects the amount of help caregivers provide to them. Dementia caregivers provide on average a higher level of help (Figure 18) with activities of daily living (Mean= 23.2) than non-dementia caregivers (Mean= 16.2). Specifically, caregivers providing care to loved ones with dementia on average assist them at a significantly higher level than non-dementia caregivers across all the types of needs (personal, financial, cognitive, and instrumental).

Dementia caregivers were also more likely to place their care-recipient in nursing care than non-dementia caregivers do. This occurs more often if the care-recipients’ health worsen.

Figure 18

Caregiver Help with ADL/IADL’s Needs of Care-recipient by Dementia
b) Dementia Caregivers’ Health Outcomes:

Dementia caregivers reported significantly higher levels of negative health conditions than non-dementia caregivers for outcomes such as depression, subjective stress, perceived strain, caregiver’s burden and stigma and other.

**Caregiver Depression:** We used the ten-item CESD measure with a 4-point scale for each item where “1” was rarely and “4 “most of the time (total scores ranged from 4 to 40). The average score of depressive symptoms among dementia caregivers measured by the CESD depression scale was 17.5 (SD = 6). Dementia caregivers reported the highest level of depression in comparison to other caregivers (Mean= 17.3, SD= 6) and the population of 60 and older adults in the County (Mean= 15.1, SD=5.3). Additionally, a higher proportion of caregivers scored above the clinical cut-off score for depressive symptom than participants 60 and older in the Meck60+ sample (see Figure xx).

**Perceived Stress:** Dementia caregivers reported a significantly higher level of perceived stress (Mean = 6.2, SD=2.9) on a single item (scale from 1 to 10) than non-dementia caregivers (Mean= 5.5, SD= 1.9). Caregivers perceived much higher level of stress than adults 60 and older in the County (Mean= 2.7, SD= 2.2) (Figure 19).

![Figure 19](image-url)
**Caregiver Strain:** Caregivers reported on an index of hardship/strain due to financial hardship, physical strain and emotional stress. Dementia caregivers reported significantly higher levels of caregiving strain (Mean= 14.6) than non-dementia caregivers did (Mean= 10.3).

**Caregiver Burden:** Caregivers reported on three dimensions of caregiver burden: changes for time for themselves, level of tension and perceived caregiving demands. Dementia caregivers reported a significantly higher level of perceived burden (mean = 48.1) than non-dementia caregivers (mean = 41.6).

**Perceived Stigma:** Caregivers were asked if they were embarrassed over behaviors of the care-recipient; if they were uncomfortable having friends at home in the presence of the loved one; if they were anxious about taking the care-recipient to public places, or if they were not willing to let others know about the care-recipient. Dementia caregivers provided on average significantly higher level on the overall index of perceived stigma (mean = 7.2) than non-dementia caregivers (mean = 4.1).

Dementia Caregivers reported more negative health outcomes associated to their caregiving situation than non-dementia caregivers (see overview Figure 20).

**Figure 20**

Overview: Caregivers Health Outcomes by Dementia

<table>
<thead>
<tr>
<th></th>
<th>Non-Dementia Caregivers</th>
<th>Dementia Caregivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver Depression</td>
<td>17.3 17.5</td>
<td>14.6 48.1</td>
</tr>
<tr>
<td>Caregiver Strain</td>
<td>10.3</td>
<td>6.2 41.6</td>
</tr>
<tr>
<td>Caregiver Stress</td>
<td>4.8 6.2</td>
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</table>
c) **Dementia Caregivers’ Support Services:** Dementia caregivers in comparison to non-dementia caregivers reported a significantly higher level of service utilization available on the community during the past three months in a scale from 1 to 10. They received more information about services, more education/training on how to care, information about caring for people with Alzheimer’s, and services from agencies on how to care for their care-recipients (Figure 21).

However, the number of dementia caregivers using these services is very low. Dementia caregivers indicate that they are not using services (Figure 21) such as, receiving information from community services (45.2%); education and training on how to care (54.8%); support on how to care for dementia persons (48.4%); help from organizations to help with care (58.1%); help on how to access services (80%); and help with plan of care (67.9%).

**Figure 21**

![How often Caregivers Received Information about Services Past 3 Months by Caregiver Type](image)
PLAN FOR ACTION: The provision of care to older adults in the United States is a challenge since we have a growing population of older adults and the number of available caregivers is not keeping pace. By 2056, the population over 65 will become larger than the population under 18 years old. This will exacerbate the challenge since about one-third of older adults experience frailty, dependency, and need for assistance as they age. As baby boomers turn 70 and older, the need for caregiving will inevitably increase.

The findings from the sample of caregivers in Charlotte show that informal caregivers provide the most care. They receive help from relatives and community members, and they require flexibility, both at home and at work. However, our data also identify important challenges for caregivers, such as access to information, supportive services, educational, behavioral, and mental health programs, and long-term care solutions. As a community with a culture of care, we must identify priorities to develop a comprehensive plan to improve the quality of life for caregivers, care-recipients and their families in Charlotte and Mecklenburg County.

Conceptually, much of the literature on family caregiving applies a general stress and coping model for identifying factors associated with caregivers’ well-being (Pearlin, Mullan, Semple, & Skaff, 1990). The model indicates that individual characteristics (e.g. gender, age), stressors (e.g. morbidity, role strain) and resources (e.g. supportive services) affect the health and quality of life of caregivers. Researchers also use a sociocultural stress and coping model to explain ethnic differences in caregiver stress, coping styles, appraisals and caregiving outcomes (Aranda & Knight, 1997). According to this model, the differences in caregiving outcomes across ethnic groups are due to cultural preferences and coping abilities in dealing with the demands of the caregiving situation (Montoro-Rodriguez & Gallagher-Thompson, 2009).

The comprehensive model of successful aging (PCP) developed by Kahana and colleagues (see Figure 7), focuses on the caregiving social context and dyadic interactions of the caregiver-care-recipient relationship (Kahana, Kahana & Lee, 2014). The model incorporates proactive actions that individuals take to adapt to age related changes and stressors to optimize their health. It includes resources (social support), internal dispositions (self-coping strategies) and behavioral adaptations (health promotion) as strategies to adapt to environmental demands by developing caregivers’ skills to better care for their love ones.

These programs address the social, environmental and contextual readiness to accommodate both caregivers and their families. Recent initiatives promote “Dementia Friendly Communities” to support caregivers and their families (https://www.dfamerica.org/what-is-dfa). Such programs are long-term commitments by community organizations from different sectors to agree to an agenda for social change to improve inclusion and quality of life for people with dementia and their families. The goal is to change people’s perceptions of dementia and transform the way the community thinks, acts and talks about living with dementia.

We examine two domains of interest to identify strategies and action item recommendations to support family caregivers in the community using a person-centered care approach.
Domain 6: Family Caregiving Support

To examine support for family caregivers using person-centered care we need to consider key concepts we have learned during the past years about caregiving. One of them is the heterogeneity of the experience of caregiving, which includes both caregiver and care-recipient personal characteristics and their specific contexts. We also need to recognize cross-cutting factors such as the diverse trajectories of caregiving, the multi-cultural needs of family caregivers or the implications for health and quality of life among caregivers experiencing poverty, episodic educational and employment opportunities. We propose the following strategies to support caregivers and their care-recipients and to reduce social, environmental and contextual demands for dementia family caregivers.

Strategy 10: Programs and Services

The findings from our sample of caregivers in Charlotte revealed that caregivers receive help from relatives and community members, and that they require flexibility at work and additional support services, in particular respite services. Dementia caregivers indicated a greater need for services than non-dementia caregivers. Dementia caregivers were also more likely to need institutional dementia services for their care-recipients. Both caregivers and the involvement of their family members in providing care are central to better quality of care.

The role of family caregivers is also important when treating patients with advanced illness, many of whom experience chronic diseases. Patient-centered care requires the caregiver’s involvement in either context (community or medical care). Caregivers will always benefit by understanding the care-recipients’ underlying health conditions, setting goals of care, translating them into practice with tailored interventions, and sharing specific information with all professionals and sites of care. Caregivers may need education and assistance to make patient-centered care a reality for care-recipients with advanced illness.

Caregivers also identified challenges to access information, supportive services, educational, behavioral, and mental health programs, having work flexibility, and long-term care solutions. As we discussed under Strategy 5 on the role of “proactive behavioral adaptations” in the model of successful aging (Figure 7), family caregivers benefit by engaging in proactive adaptations. Caregivers may improve their quality of care for their loved ones by participating in evidence-based programs to manage health outcomes (stress, depression, burden), and refresh their coping skills (assertive communication).

A comprehensive resource site for evidence-based programs is available at the Family Caregiver Alliance (see www.caregiver.org). Most caregiver interventions offer psychosocial support to improve mental health outcomes such as stress and depression and burden. On the other
hand, there is a growing interest to examine the caregiver’s physical health (Chen, Li, Losada, Zhang, Alma, Larry & Dolores Gallagher-Thompson, 2020).

Finally, family caregiving theories have contributed significantly to improve our understanding of the dynamic and diverse experiences of caregivers. Some theories have been translated into best practices to deliver a broad range of programs for family caregivers. However, there is a need to translate most of these theories into interventions for low-income and culturally diverse caregivers (Montoro-Rodriguez & Gallaher-Thomson, 2020). We have to increase existing support services for African Americans and Latino caregivers to address multiple threats associated with their experience of dementia, their cultural family context, and the everyday challenges associated with their low-income status and limited available resources.

We propose the following action items to improve the network of supportive services available for caregivers and their care-recipients, with emphasis on dementia family caregivers:

**Action 35**: Provide awareness and education about community family caregiving, and recognition of the role and work provided by caregivers.

**Action 36**: Advocate for supporting policies designed to reimburse caregivers for some of their services.

**Action 37**: Promote incorporation of caregivers in non-medical and medical care to help at every step of patient care to ensure a culture of family- and caregiver-centered care.

**Action 38**: Train health care providers and professionals to educate caregivers about the plan of care, and to inform them about available services and referrals.

**Action 39**: Support comprehensive “guided care” for patients with multiple chronic illnesses, by using nurse practitioners to perform home-based geriatric assessments.

**Action 40**: Partner with community organizations (churches, YMCA’s, senior/community centers) to support professional “family navigators”, “promotores de salud” volunteers or care managers to help caregivers to manage the plan of care for their care-recipients.

**Action 41**: Increase information about home-and community services for caregivers and their care-recipients (such as respite care, case management, in-home services, etc.) to delay or prevent institutionalization.

**Action 42**: Advocate for supporting policies for flexible work schedules for employees caring for persons with chronic health conditions at home.
**Action 43:** Deliver evidence-based programs to support family caregivers by offering health promotion behavioral modifications programs to promote healthy adaptations.

**Action 44:** Increase mental health services for family caregivers by offering evidence-based cognitive behavioral programs to manage, anger, depression, or burden.

**Action 45:** Offer “telehealth” medical/social services to reach out to rural and underserved caregivers taking care of people with advanced chronic health illnesses.

**Action 46:** Improve access to medical and social services by removing barriers such as lack of transportation, language preference, knowledge about health conditions, information about services, trained professional.

**Action 47:** Offer virtual tailored educational and behavioral programs for caregivers providing care to people with chronic conditions, with special attention to underserved populations.

**Action 48:** Design a recurrent caregiving research agenda for North Carolina to assess the needs, health outcomes, service utilization and well-being of family caregivers.

**Action 49:** Offer evidence-based support interventions and programs to address the needs of African Americans and Latino caregivers in the community, focusing on their experience of dementia, their cultural family context, and/or the challenges associated with their low-income status, health literacy and limited available resources.

**Domain 7: Dementia Friendly Community**

_Dementia friendly_ initiatives share similarities with the _Age-Friendly_ movement by focusing on active engagement and improved quality of life for older adults. Dementia friendly initiatives offer a positive narrative by embracing dignity, empowerment, and autonomy to enable well-being throughout the dementia trajectory (Hebert & Scales, 2019). Dementia friendly initiatives add additional qualities to each one of the domains of age-friendly communities in order to attend to the needs of people living with dementia. For example in addition to available events and activities for older adults, there needs to be activities that are specific and appropriate for people with dementia, or the need for first respondents, medical and home services, staff and business to recognize signs of dementia and how to support customers with dementia ([https://www.passitonnetwork.org/wp-content/uploads/AFC-DFCOverlayBenefit-DFA.pdf](https://www.passitonnetwork.org/wp-content/uploads/AFC-DFCOverlayBenefit-DFA.pdf)). These two approaches, age- and dementia friendly initiatives, complement each other and the coordination between them is strongly recommended (Turner & Morken, 2016).
We examine strategies and action item recommendations to support dementia family caregivers in the community using a person-centered care approach.

**Strategy 11: Dementia Capable North Carolina Plan**

In North Carolina, the number of people living with Alzheimer's disease is projected to increase to more than 210,000 people by 2025. The symptoms of dementia caused by brain malfunction include memory loss, language difficulty, and impaired judgment. Alzheimer’s disease is now the fifth leading cause of death in North Carolina. The main factors associated with Alzheimer's disease or related dementias are age and genetic disposition. In addition, other risk factors are lack of physical activity, educational attainment, social and cognitive engagement, type of occupation, diabetes, cardiovascular disease, hypertension, obesity, and depression. Alzheimer’s Disease and related dementias have a significant impact on affected families. The Alzheimer's Association estimated that 448,000 people in North Carolina provided $6.2 billion in unpaid care for loved ones with dementia in 2014 (NCIOM, 2016).

The North Carolina Institute of Medicine (NCIOM), in partnership with the North Carolina Department of Health and Human Services Division of Aging and Adult Services, AARP North Carolina, Alzheimer's NC, the Alzheimer's Association, the Duke Endowment, the Winston-Salem Foundation, and LeadingAge North Carolina, convened a statewide, multi-stakeholder Task Force on Alzheimer’s disease and Related Dementias. Through a mandate from the North Carolina General Assembly, the Task Force was charged with developing an actionable strategic plan for the state that would address topics related to Alzheimer's Disease and related dementias. The NCIOM published their final report entitled “Dementia Capable North Carolina: A Strategic Plan for Addressing Alzheimer’s disease and Related Dementias in 2016.

The main recommendations aim to improve statewide awareness and education about Alzheimer's disease and related dementias; support people with dementia and their families; improve and enhance services that support greater quality of life; reach underserved populations; and improve data collection and research around treatment and prevention of Alzheimer's disease and related dementias. Following the recommendations of the Dementia Capable North Carolina strategic plan, several community organizations across sectors in Charlotte and Mecklenburg County created a dementia friendly initiative aimed to address the main recommendation items from the strategic plan. Currently it has embraced the Dementia Friendly America principles (see [https://www.dfamerica.org/](https://www.dfamerica.org/)), and it is developing guidelines and programs to improve the quality of life of persons with Alzheimer’s and their family caregivers in Charlotte and Mecklenburg County.

Findings from our sample of caregivers in Charlotte revealed that dementia caregivers provide help to care-recipients with a significantly higher comorbidity level (3 to 4 chronic health conditions) than non-dementia caregivers (2 chronic conditions) and report on average more
hours of weekly care (Mean= 42.8) than non-dementia caregivers (Mean= 25.5). Furthermore, dementia caregivers report significantly higher levels of health troubles than non-dementia caregivers for outcomes such as depression, subjective stress, perceived strain, caregiver’s burden and stigma. Dementia caregivers also report a greater need for services than non-dementia caregivers, and many declared that they do not use any services at all. Likewise, dementia caregivers have low use of community programs to help them with information, education and training.

These findings underscore the urgency of implementing the recommendations identified by the Dementia Capable North Carolina strategic plan in Charlotte and Mecklenburg County, in particular the recommendation to provide support and resources for caregivers caring for family members with Alzheimer’s disease and related dementias. Caregivers reported more physical and mental health troubles than adults 60 and older in Charlotte and the County; however, dementia caregivers reported even higher negative health outcomes. We propose the following action items to improve the network of supportive services available for dementia caregivers, and their care-recipients, and creating a dementia friendly community:

**Action 50:** Support the Charlotte Dementia Friendly initiative coordinated by Centralina Area Agency on Aging to join efforts with the Mecklenburg County Department of Social Services to implement a comprehensive Age- and Dementia Friendly strategic plan for Charlotte and the County. The goal is to add recommendations and action items to each one of the domains of the Age-Friendly initiative to support caregivers and their relatives living with dementia.

**Action 51:** Implement recommendations from the Dementia Capable North Carolina strategic plan. It aims to improve: a) statewide awareness and education about Alzheimer’s disease and related dementias; b) support people with dementia, caregivers and their families; c) improve and enhance services that support greater quality of life; d) reach underserved populations; and d) improve data collection and research around treatment and prevention of Alzheimer's disease and related dementias.
Final Thoughts and Future Direction

Overall, the Meck60+ data findings highlight the need to have a broader conversation with seniors, City and County officials and community agencies and organizations providing services and advocating for seniors, to develop a comprehensive plan to support people of all ages, and find strategies to build intergenerational connections between older adults, youth, and children in Charlotte and Mecklenburg Count.

This report updates information about the status of older adults in Charlotte and Mecklenburg County in 2020. It presents data on the social determinants of health, socio-demographic information, physical and mental health needs, service utilization and community quality of life satisfaction for adults 60 and older. It also examines the experience of family caregivers, their needs for supportive services and better health outcomes.

We hope these findings and recommendations will help the policymakers, professionals, and those working with older adults to prioritize goals and strategies to improve the quality of life of seniors and their families, and contribute towards age integration and solidarity among generations. Looking forward we believe the following are central pressing issues affecting older adults that require significant collaborative efforts:

1. **Social Isolation**: Social isolation, loneliness and lack of connections are experienced by many adults 60 and older, and they are particularly common in vulnerable populations—people who are socially disadvantaged such as immigrants and minority groups or those with disability. If isolation leads to a subjective sense of loneliness, it may have consequences on people’s mental health, physical health and mortality. Given these deleterious effects, policymakers, professionals, and advocates need to come up with initiatives to reduce isolation and loneliness in our community (for innovative programs see Hudson, 2017). Systematic reviews of interventions to reduce social isolation and loneliness among older people have reported some success in reducing social isolation and loneliness, but the quality of evidence was generally weak. (Gardiner, Geldenhuys & Gott, 2018; Bermeja & Ausín, 2018). Thus, support to develop and implement evidence based programs to advance social connection and integration for people of all ages in our community is yet one of the challenges we are facing.

2. **Health and Supportive Services**: Self-reported physical and mental health data for adults 60 and older in Charlotte and Mecklenburg County show that most adults perceived their health as good, but they also report health challenges with functional health, disability, chronic conditions, and psychological health outcomes. For example, about one-third of adults 60 and older report having on average two chronic health conditions, and their levels of depression are above the clinical depression cut-off index as measured by the CES-D scale. In addition, insurance coverage, and use of medical services was limited for preventive services, and almost non-existent for mental health
services. Furthermore, there were significant health differences on medical service use by racial and ethnic groups. We encourage the County leaders to work with the North Carolina Task Force on Serious Illness Care under the leadership of the NCIOM to implement important recommendations that address issues such as access to care, insurance coverage, and support for caregivers, advance care planning, and health care workforce, among others.

1. **Family Caregiving**: Caregivers receive help from relatives and community members, and they require flexibility at work and additional support services, in particular respite services. In addition, dementia caregivers experience a greater need for services than non-dementia caregivers do. In Charlotte and Mecklenburg County Project CARE (Caregiver Alternatives to Running on Empty) is the only state funded, dementia specific support program for individuals who directly care for loved ones with Alzheimer’s disease or related dementias. CARE is a coordinated delivery system that is responsive to the needs, values and preferences of unpaid family caregivers. Since we expect a growing demand for caregiving, we encourage expanding the array of services it provides and increasing the number of caregivers in the program. Additional support for evidence-based interventions and programs for family caregivers is desirable, in particular for those caring for people with Alzheimer’s disease or related dementias.

2. **The Role of Technology**: The use of technology in many domains of our lives (from work to health and support) is increasing. Many resources and programs are now available online, and information and communication technologies are becoming effective supportive tools for caregivers (Montoro-Rodriguez & Gallaher-Thomson, 2020). This rapid growth has changed everyday life and made information technology a vital resource for many (Lindeman, Kim, Gladstone & Apesoa-Varano, 2020). Therefore, it is not surprising that caregivers, educators, and health professionals are turning to technology to help dementia patients and their family caregivers to reduce their burden, stress, and depression and to preserve quality of life.

3. **Research Agenda**: The Meck60+ data results from a cross-sectional survey to update the status of seniors and caregivers in the County. As such, it does not answer questions about change over time. To understand the progress on the goals we set for the future we need to design a recurrent panel survey of older adults and caregivers in the County. The data will provide a wealth of information on trend patterns that will be useful to assess progress and identify generational gaps. For example, recent longitudinal research suggests that adults reporting feeling lonely had an increased risk of developing all-cause of dementia and Alzheimer’s disease over 20-years of follow-up (Sundstrom, Adolfsson, Nordin & Adolfsson, 2020). These findings from a population-based study underscore the importance of paying attention to perceived loneliness.
among older adults and the urgency to identify intervention strategies that reduce loneliness (Sundstrom, Adolfsson, Nordin & Adolfsson, 2020). Having a research agenda to assess the needs, health outcomes, and well-being of seniors over time is important to improve the quality of life of adults in Charlotte and Mecklenburg County.

We have identified specific domains of interest addressing issues related to older adults and family caregivers in Charlotte and Mecklenburg County. We have also proposed specific strategies and action items based on conceptual models and the data findings from the Meck60+ survey. Over the years, we are fortunate to have several community collaborative efforts focusing on improving the status and quality of life of older adults. Among these initiatives we have people from different professional backgrounds, organizations and sectors working to make Charlotte and the County a Dementia Friendly, Age-Friendly and Livable Community. We also have great resources at the state level with several task forces on health, programs and services, dementia care, and taskforce on Serious Illness Care.

Each one of these initiatives in conjunction with the others would provide important information to the community and effectively contribute to develop a comprehensive plan to address the needs of older adults and their families. Our last recommendation is to request that we find ways to integrate these efforts, prioritize goals, share data resources and assess progress toward social integration and better quality of life for residents of any age in Mecklenburg County.

Finally, we are thankful for the generous support from our community partner and sponsor Southminster Retirement Community in Charlotte, and appreciate their commitment to improve the status of seniors in the community.

Sincerely,

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Appendix: Methodology

Random Digit Dialing Sample

Participants: A total of 370 adults aged 60 and older and 81 family caregivers in Charlotte and Mecklenburg County were interviewed by Customer Research International (CRI) utilizing a questionnaire designed by staff at The Gerontology Program. Respondents were screened in order to interview either the adult aged 60 or older in the household or a respondent providing care to this population. Additional screening was performed to ensure residence within Mecklenburg County. Caregivers were screened for those providing unpaid care to any relative or friend. Sampling was utilized to provide specific target quotas for Latino, African American, and Caucasian respondents. Both an English and Spanish language version of the questionnaire was made available. Spanish speaking households were called back by a bilingual interviewer in an attempt to complete the interview in Spanish. 21 total Spanish surveys were conducted.

Procedures: Telephone numbers were purchased by CRI through Survey Sampling International (SSI) and Aristotle, both reputable sample providers. Interviews were conducted using computer-assisted telephone interviewing (CATI) software, which ensured all questions were asked correctly and all logic and skip patterns were implemented properly. The telephone sample was also managed by the CATI system, allowing dialing rules and disposition management to be streamlined. To ensure the highest response rate, each telephone number was called up to five times at various times of the day and week. Additionally, respondents were allowed to request a callback at a more convenient time and date. These appointments were called at the appointed time, and up to five additional times if the respondent was not available at the initially requested time.

Face-To-Face Convenience Sample

Participants: Participants were recruited through a convenience sample by disseminating flyers to local community groups including: Mecklenburg County Libraries, YMCA of Greater Charlotte, El Camino Community Center, Shamrock Senior Center, Tyvola Senior Center, North Mecklenburg Senior Center, Charlotte Community Health Clinic and local places of worship. Respondents were screened in order to interview either adults aged 60 or older or a respondent providing care to this population. A total of 388 adults aged 60 and older and 46 family caregivers in Charlotte and Mecklenburg County were interviewed. Both an English and Spanish language version of the questionnaire was made available. A total sample of 70 adults aged 60 and older and 8 family caregivers were interviewed in Spanish.

Procedures: Trained Graduate Assistants from the University of North Carolina at Charlotte conducted all screenings and interviews. Screenings were conducted over the phone and interviews were conducted at the participant’s home or at a public location near the participant’s home. Participation consisted of a 1-time face-to-face survey questionnaire that took no more than 1 hour of time.
Data Preparation: The Meck60+ participants included their residential address, allowing spatial analysis of the survey responses. The residential addresses were geocoded (converting addresses to coordinates that can be displayed on a map) using ArcGIS Pro™. Subsequently, 738 addresses were successfully geocoded using the Mecklenburg County street network as the reference dataset from Mecklenburg County’s GIS Open Mapping online portal1. The locations of the Counties’ parks, bus and light rail stations and routes also came from reference 1. The socioeconomic and sociodemographic data was collected from the US Census’ 2016 ACS Estimates dataset 2. The geographic data (i.e. county boundary, zip code boundaries, and census tract boundaries) were collected from the US Census’ Tiger/Line Shapefile dataset 3 (2016boundary data). The geocoded addresses were subsequently aggregated at both the zip code and census tract levels.

Mapping Methodology: The majority of the maps were made using a choropleth mapping approach – a thematic map that uses colors to represent the value of a statistical variable. Graduated colors were used for the choropleth maps to identify spatial patterns of a particular
variable (i.e. light shades = small values; darker shades = high values). A quantile classification method was used to separate the data values into distinct classes if the data were linearly distributed, where each class contains an equal number of features. Otherwise, a Natural Breaks classification method was used, where the class breaks are based on the natural groupings of the data – i.e. maximizing the differences between classes. For the multivariate mapping analysis, a bivariate mapping approach was used. Bivariate mapping is a variation of a choropleth map and can show the spatial relationship of two variables (e.g. income and education) for each areal unit (i.e. census tracts) in a study area. For this project, a 3x3 (9 class) bivariate sequential color scheme was used (see Figure 1).

![Figure 1: Bivariate map legend example](image)

Figure 1 was taken from Joshua Stevens’ “Bivariate Choropleth Maps: A How-to-Guide”. In essence, variable one’s values are from low to high on the vertical axis; and variable two’s values are from low to high on the horizontal axis. For example, the white square on the bottom left of Figure 1 shows that a location represented by that color indicates the lowest value class break for variable two and the lowest value class break for variable one.

**References**

1. [http://maps.co.mecklenburg.nc.us/openmapping/](http://maps.co.mecklenburg.nc.us/openmapping/)
2. [https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml)
4. [http://www.joshuastevens.net/cartography/make-a-bivariate-choropleth-map/](http://www.joshuastevens.net/cartography/make-a-bivariate-choropleth-map/)
References


NCCARE360 website https://www.ncdhhs.gov/about/department-initiatives/healthy-opportunities/nccare360


# RECOMMENDATIONS FOR A SYSTEMIC PLAN FOR ACTION

## MECK60+ SOCIODEMOGRAPHIC INFORMATION

### SUMMARY

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<td>Life Long Learning</td>
<td><strong>Action 2</strong>: Establish an Osher Lifelong Learning Institute (OLLI) in Charlotte to offer educational programs and opportunities to connect with others.</td>
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<td><strong>Action 3</strong>: Promote educational programs for seniors at local community colleges and universities.</td>
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<td><strong>Action 4</strong>: Develop targeted and culturally tailored educational activities to empower seniors to be informed, self-sufficient, engaged and confident.</td>
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<td><strong>Action 5</strong>: Develop interventions aimed to strengthen kinship ties to assess and strengthen kinship ties.</td>
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## RECOMMENDATIONS FOR A SYSTEMIC PLAN FOR ACTION
### MECK60+ PHYSICAL AND MENTAL HEALTH AND USE OF SERVICES

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<td><strong>Action 11:</strong></td>
<td>Create effective care teams that include geriatric healthcare professionals such as doctors, nurses, pharmacists, social workers, and others with unique skills for evaluating and managing health care plans for adults.</td>
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<td><strong>Action 12:</strong></td>
<td>Provide training for health organizations and professionals for best practices on person-centered care and implement standard protocols to assess older adults’ resources to develop plan of care that includes coordination of medical, social and behavioral services.</td>
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<td><strong>Action 13:</strong></td>
<td>Engage with advocates such as family caregivers, friends, health navigators, church members, and others to offer social, behavioral, and psychological support services and incorporate their efforts as part of the team.</td>
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<td><strong>Action 14:</strong></td>
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<td><strong>Action 16:</strong></td>
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<td><strong>Action 18:</strong></td>
<td>Support the implementation of the statewide coordinated care network NCCARE360. It provides a coordinated, community-oriented, person-centered approach to delivering care in North Carolina.</td>
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<td>STRATEGIES</td>
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| Strategy 7       | **Action 19:** Promote a community conversation to reframe the national dialogue about aging and ageism by reducing misperceptions and stereotypes leading to discrimination against older people.  
**Action 20:** Provide media and social campaigns to correct popular myths and misconceptions about older adults while highlighting the importance of positive views.  
**Action 21:** Create a County Senior Affairs Commission under the leadership of the Area Agency on Aging, representing seniors across the County to advise and provide information to the Board of County Commissioners and the Division of Aging and Adult Services on matters related to older adults.  
**Action 22:** Schedule community activities across the county to raise awareness of aging, portray stories and narratives of older adults, highlight their contributions to the community, and inform them about programs and interventions to change outcomes.  
**Action 23:** Work with community organizations offering services used by older adults, to provide information and deliver healthy active programs for adults, in particular to reach out to women and minority groups.  
**Action 24:** Advocate for an expanded array of activities and engagement opportunities in the County library system. Many adults favor the use of Library services. Public Libraries maybe good places to reach out to older adults and offer social, educational or civic activities.  
**Action 25:** Evaluate the quality and availability of Mental Health services in the County and examine service use barriers and best practices to facilitate access to Mental Health programs by older adults and their families.  
**Action 26:** Integrate Senior Centers and Nutritional programs with Community Centers, and offer programming for people of all ages. Other health services such as community health and mental health may also be more accessible at Community Centers. |
## RECOMMENDATIONS FOR A SYSTEMIC PLAN FOR ACTION
**MECK60+ COMMUNITY QUALITY OF LIFE**

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<th>STRATEGIES</th>
<th>ACTION ITEMS</th>
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<tbody>
<tr>
<td><strong>Strategy 8</strong></td>
<td><strong>Supportive Physical Environment</strong></td>
</tr>
<tr>
<td><strong>Action 27:</strong></td>
<td>Support the Age-Friendly initiative by the County Division of Aging Services (DSS) to improve the built environment and identify actions to make outdoor spaces, transportation and housing age-friendly.</td>
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<tr>
<td><strong>Action 28:</strong></td>
<td>Create a dissemination and information campaign to increase awareness, knowledge and use of outdoor spaces, the transportation network, and seek grants and programs to renovate home environments, increase affordable housing units and community safety.</td>
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<tr>
<td><strong>Action 29:</strong></td>
<td>Work with real estate developers to provide information about Universal Design Age-Friendly solutions in new construction and renovations of existing housing stock. Universal Design facilitates older adults remaining in their homes longer, which allows them to remain in their interconnected community.</td>
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<td><strong>Strategy 9</strong></td>
<td><strong>Integrated Care Services</strong></td>
</tr>
<tr>
<td><strong>Action 30:</strong></td>
<td>Promote aging in place initiatives such as the Charlotte Village Network founded in 2015 by older adult volunteers in the South Charlotte area. The CVN is a social and non-profit support organization that, through both volunteers and a small paid staff, coordinate access to affordable services including transportation, health and wellness programs, home repairs, social and educational activities, other day-to-day needs enabling individuals to remain in their homes, and connected to their community.</td>
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<tr>
<td><strong>Action 31:</strong></td>
<td>Promote multi-agency collaboration to create synergies for new community resources and services. Community Health Clinics in collaboration with local churches/faith community, health providers, educational institutions, and others need to discuss ways to support residents/members of all ages by pulling together their assets/resources (volunteers, grants, professionals) and design specific neighborhood programs to support needed services such as transportation, day care centers for children and adults, intergenerational programs, etc.</td>
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<tr>
<td><strong>Action 32:</strong></td>
<td>Support integrative care services by discussing with health care organizations and service providers ways to provide information about services and facilitate access to them. For example by creating a County coordinated care network to connect electronically older adults with disability or chronic health conditions to available community resources.</td>
</tr>
</tbody>
</table>
# RECOMMENDATIONS FOR A SYSTEMIC PLAN FOR ACTION

## MECK60+ COMMUNITY QUALITY OF LIFE

### STRATEGIES

### ACTION ITEMS

**Action 33**: Support the implementation of the first statewide coordinated care network NCCARE360 that promotes a coordinated, community-oriented, person-centered approach to delivering care in North Carolina.

**Action 34**: Consider geographic distribution of community services infrastructure (Hospitals, Emergency Services, Mental Health Services, Parks and Recreation Centers) to improve access and use among older adults. Geographical equity requires an effort to locate community services in the midst of individuals who need and use them the most.

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# RECOMMENDATIONS FOR A SYSTEMIC PLAN FOR ACTION

## MECK60+ FAMILY CAREGIVING

### STRATEGIES

### ACTION ITEMS

**Strategy 11**: Programs and Services

**Action 35**: Provide awareness and education about community family caregiving, and recognition of the role and work provided by caregivers.

**Action 36**: Advocate for supporting policies designed to reimburse caregivers for some of their services.

**Action 37**: Promote incorporation of caregivers in non-medical & medical care to help at every step of patient care to ensure a culture of family- and caregiver-centered care.

**Action 38**: Train health care providers and professional to educate caregivers about the plan of care, and to inform them about available services and referrals.

**Action 39**: Support comprehensive “guided care” for patients with multiple chronic illnesses, by using nurse practitioners to perform home-based geriatric assessments.

**Action 40**: Partner with community organizations to support professional “family navigators”, “promotores de salud” volunteers or care managers to help caregivers to manage the plan of care for their care-recipients.
## RECOMMENDATIONS FOR A SYSTEMIC PLAN FOR ACTION
### MECK60+ FAMILY CAREGIVING

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<tr>
<td><strong>Action 41</strong>: Increase information about home-and community services for caregivers and their care-recipients (such as respite care, case management, in-home services, etc.) to delay or prevent institutionalization.</td>
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<tr>
<td><strong>Action 42</strong>: Advocate for supporting policies for flexible work schedules for employees caring for persons with chronic health conditions at home.</td>
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<td><strong>Action 43</strong>: Deliver evidence-based programs to support family caregivers by offering health promotion behavioral modifications programs to promote healthy adaptations.</td>
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<td><strong>Action 44</strong>: Increase mental health services for family caregivers by offering evidence-based cognitive behavioral programs aim to manage, anger, depression, or burden.</td>
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<td><strong>Action 45</strong>: Offer “telehealth” medical/social services to reach out to rural and underserved caregivers taking care of people with advanced chronic health illnesses.</td>
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<td><strong>Action 46</strong>: Improve access to medical and social services by removing barriers such as lack of transportation, language preference, knowledge about health conditions, information about services, trained professional.</td>
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<td><strong>Action 47</strong>: Offer “Virtual” tailored Educational and Behavioral programs for caregivers providing care to people with chronic conditions, with special attention to underserved populations.</td>
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<td><strong>Action 48</strong>: Design a recurrent caregiving research agenda for North Carolina to assess the needs, health outcomes, service utilization and well-being of family caregivers in the County.</td>
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<td><strong>Action 49</strong>: Offer evidence-based interventions to address the needs of African Americans and Latino caregivers, focusing on their experience of dementia, their cultural family context, or challenges associated with low-income status, health literacy and limited available resources.</td>
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| **Strategy 12**<br>Dementia Capable NC Plan | **Action 50**: Support the Charlotte Dementia Friendly initiative to join efforts with the Department of Social Services to implement a comprehensive Age- and Dementia Friendly strategic plan. The goal is to add recommendations and action items to each one of the domains of the Age-Friendly initiative to support caregivers and their relatives.  
**Action 51**: Implement recommendations from the Dementia Capable North Carolina strategic plan. It aims to improve awareness and education about Alzheimer's disease and dementias; support people with dementia and caregivers; improve and enhance services that support greater quality of life; reach underserved populations; and improve data collection and research around treatment and prevention of Alzheimer’s disease and related dementias. |