Integrated Systems Grant

Results of a Pilot Test of a Consumer Experience Survey

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# Contents

Summary ............................................................................................................................................. 1  
Introduction ....................................................................................................................................... 3  
Study design ....................................................................................................................................... 4  
Study methods ..................................................................................................................................... 5  
  Sample and data collection ........................................................................................................... 5  
Survey results ....................................................................................................................................... 7  
  Services received ....................................................................................................................... 7  
  Contact with Senior LinkAge Line® ..................................................................................................... 7  
  Older adult interest in services among those who had contact with  
    Senior LinkAge Line® ....................................................................................................................... 8  
  How older adults who did not have contact with Senior LinkAge Line®  
    learned about and arranged for services ......................................................................................... 9  
Satisfaction with services ................................................................................................................... 9  
  Older adults’ impressions of information and support received from the  
    Senior LinkAge Line® ....................................................................................................................... 11  
Conclusions ......................................................................................................................................... 14  
Appendix A ........................................................................................................................................ 16  
  Review of survey items as potential core questions for consumer feedback ................................. 16  
Appendix B ........................................................................................................................................ 18  
  Discussion of analytics for significance and effect size ................................................................. 18
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Wilder Research staff who contributed to this report include Mark Anton, Walker Bosch, Marilyn Conrad, and Ron Mortenson.

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Grantees undertaking projects under government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official Administration on Aging, Health and Human Services, or Minnesota Board on Aging policy.
Summary

In September 2011, The Minnesota Board on Aging (MBA) received two Integrated Systems grants from the U.S. Administration on Aging (AoA). Wilder Research was contracted to conduct both a formative and a summative evaluation of the grant initiative throughout its implementation (September 2011-July 2014), with the goal of understanding how and in what ways progress was being made on the goals of the initiative, and what challenges or barriers stood in the way of successful project implementation.

The Integrated Systems Grant initiative’s efforts were designed to develop and strengthen the flow of home and community-based supports to older adults with health challenges so they can remain at home safely and avoid needless emergency care and hospitalizations.

As a part of the evaluation, Wilder Research conducted a pilot test of a consumer experience survey. The primary objectives of the consumer survey were to obtain information about:

- How older adults learn about and arrange for non-medical services that are available to help them live independently
- Consumers’ views of the helpfulness of the Title III services they use and of any assistance they may have received arranging for the services
- The extent to which the partnership efforts between health care providers and home and community-based services are visible to the consumer

The survey also sought to understand any barriers associated with the identification of a representative sample of participants and opportunities for improving service access for older adults.

In addition, the survey tested five core satisfaction questions for broader use. These questions are designed to assess older adults’ and their caregivers’ perceptions of the benefit of the services they received.

The study sample was comprised of 44 older adults with current contact information who had received a referral to the Senior LinkAge Line® from a health care provider grant partner, and had a record in the state of Minnesota’s Peer Place data base of receiving at least one Title III service between January 1, 2014, and April 30, 2014. Thirty telephone interviews were completed in June 2014 with consumers or their family caregivers in four Minnesota Area Agency on Aging (AAA) regions: Arrowhead Area Agency on Aging; Central Minnesota Council on Aging; Minnesota River Area Agency on Aging, and Southeastern Minnesota Area Agency on Aging.
The results of the consumer experience pilot showed that:

- Based on service tracking information, a sample of service recipients could be identified, but information about non-Title III services received by consumers was limited.

- The acceptance of services occurred most often with services like home-delivered meals, congregate dining, and chore assistance, all of which meet an immediate and practical need.

- The vast majority of respondents felt that the services they had received as a result of the referral process were helpful in meeting their needs. On a scale from 1 to 4, in which four was the highest rating, the average score among all consumers was 3.65. The simple four-point feedback scale was easy for respondents to use.

- Older adults’ ratings of Senior LinkAge Line® services were also positive, and the data suggest that there may be greater benefit when older adults (or their family caregivers) have direct contact with Senior LinkAge Line® specialists.

- Older adults are interested in, and may benefit most from contact with service providers who have extensive knowledge of local services.

- A simple consumer feedback approach is not sufficient for tracking or assessing the full range of activity that occurred as part of the Integrated Systems Grant referral process, in part because of recall issues among consumers.
Introduction

This report presents the results of a consumer follow-up survey that is part of the Minnesota Board on Aging (MBA) Integrated Systems Grant (ISG) evaluation. The primary purpose of the Integrated Systems Grant is to identify ways to better strengthen the relationships between Minnesota's health care providers and the array of home and community-based services designed to meet the needs of older adults and their caregivers and provide supports that make it possible for them to remain at home, particularly in the face of ongoing health challenges. The grant also seeks to develop and expand Minnesota's capacity to best serve the needs of persons experiencing dementia and their caregivers.

As part of the project's efforts to explore new strategies for gaining service efficiencies and develop new methods by which older adults can be engaged effectively and supported by nonmedical services, the project has sought to form partnerships between several Minnesota health care entities who became health care partners and a number of Minnesota's Area Agencies on Aging. The grant’s efforts were designed to develop and reinforce the flow of support to older adults so that they can remain in their homes safely and avoid needless and expensive emergency care and hospitalizations. The project seeks to understand the experiences of older adults who have received such referrals and learn how and in what ways their experiences are favorable or challenging.

Because this is a beta-test of a consumer feedback tool, we have collected information from a relatively small sample of respondents to better understand the survey strategy itself, the adequacy of available sampling techniques, and the ability of older adults and family members to recall their experiences and report on benefits and difficulties.
Study design

To conduct the study, Wilder Research completed telephone interviews with consumers of Older Americans Act Title III services in several Area Agency on Aging (AAA) regions on behalf of the Minnesota Board on Aging (MBA) as a part of the Integrated Systems Grants from the U.S. Administration for Community Living. The survey was designed to obtain information about the ways in which older adults learn about services that are available to help them live independently and the extent to which this occurs through the Senior LinkAge Line® or other sources, the extent to which these services are seen as helpful, the extent to which the partnership efforts between health care entities and home and community-based services are visible to the older adults interviewed, and the extent to which arrangements for Title III services and the service efforts themselves are viewed as useful to the older adults and their families. The study also sought to understand any barriers associated with the identification of a representative sample of participants and opportunities for improving service access for older adults.

Older adults and their family members were considered part of the pool of eligible respondents if they had received a referral from the health care provider partner to the Senior LinkAge Line®. Referrals were based on the health care provider’s assessment that the older adult or a family caregiver could benefit from one or more home or community-based services.

To be eligible for the final interview sample, older adults were required to have a record in the Peer Place data system showing receipt of a Title III service between January 1, 2014, and April 30, 2014.
Study methods

Sample and data collection

Referrals to the Senior LinkAge Line® that occurred as part of the Integrated Systems Grant were tracked in the Web Referral database system maintained by the Minnesota Board on Aging. Over the entire study period (October 2012 through the end of April 2014), 548 referrals were recorded in the system. Of this group, 130 different older adults had received at least one Title III service. From this group of 130 records, 55 older adults had received services between January 1, 2014, and April 30, 2014. From among this group, 44 older adults had current contact information, and this group comprised the final study sample.

Interviews were completed with older adults in four regions of the state served by the following Area Agencies on Aging:

- Southeastern Minnesota Area Agency on Aging (SEMAAA): 15 respondents
- Arrowhead Area Agency on Aging (AAAA): 6 respondents
- Central Minnesota Council on Aging (CMCOA): 5 respondents
- Minnesota River Area Agency on Aging (MNRAAA): 4 respondents

Land of the Dancing Sky AAA (LDSAAA) had two eligible respondents; however Wilder was unable to complete the surveys following initial contact with these older adults.

Metropolitan AAA (MAAA) did not have any respondents eligible for the survey. MAAA was participating in a Community Care Transitions Project (CCTP) using the Coleman model and referrals were recorded in a different data system not accessible to this study.

Interviews were conducted by telephone. At least three contact attempts were made with all older adults or designated family members in the final study sample. A $15.00 gift card was offered to respondents as an incentive to complete the study.

All interviews were completed between June 6, 2014, and June 30, 2014. The overall response rate based on the final sample was 68%.
A summary of the contact results is shown below:

- Completed interviews: 30
- Refusals: 8
- Multiple contacts with older adult or designated family member, but unable to complete an interview within study timeframe: 4
- Unable to contact older adult or designated family member: 2
Survey results

Among the 30 survey respondents, 23 were older adults (77%) and seven were spouses, adult children, or other relatives of the older adult (23%).

Services received

All survey respondents reported that they had received at least one Title III home or community-based service between January 1, 2014, and April 30, 2014. Twenty-one older adults (70%) had received one service; nine (30%) had received multiple services. Nutrition services (congregate meals and home-delivered meals) constitute the majority (56%) of services received. The table below shows the services older adults received by type.

<table>
<thead>
<tr>
<th>Service</th>
<th>Number receiving service</th>
<th>Percentage receiving service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congregate Meals</td>
<td>12</td>
<td>40%</td>
</tr>
<tr>
<td>Home Delivered Meals</td>
<td>11</td>
<td>37%</td>
</tr>
<tr>
<td>Chore</td>
<td>8</td>
<td>27%</td>
</tr>
<tr>
<td>Transportation</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Caregiver Supports</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Assisted Transportation</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Thirty older adults or caregivers were asked to rate services separately and those receiving more than one service were asked to rate each service. The total number of responses exceeds the number of respondents.

Contact with Senior LinkAge Line®

Slightly fewer than half of all survey respondents (43%) reported that they had any direct contact with the Senior LinkAge Line® staff as part of arranging services. This could have been the result of a direct contact by the home and community-based service provider with the older adult or family member following their health care visit.

Just over one quarter of all respondents (28%) reported remembering a conversation in which doctors or other health care providers at their hospitals or clinics requested their consent to have the Senior LinkAge Line® contact them with information about services available to them.
Among the 13 respondents who recalled a conversation with their health care provider about the Senior LinkAge Line®, almost all (92%) reported that they had initiated the contact with Senior LinkAge Line®. One respondent could not recall who had initiated the contact.

In addition, among all older adults interviewed, only one reported being aware of any contact their health care provider had with Senior LinkAge Line® on their behalf, and only one older adult reported that a health care provider had ever told them that they had received information from Senior LinkAge Line® to confirm that they had talked with them about services.

Older adult interest in services among those who had contact with Senior LinkAge Line®

Ten of the 13 older adults (77%) who had contact with Senior LinkAge Line® said that, before talking with the Senior LinkAge Line® specialists, they already had a fairly good idea about the kind of information or services they needed. The following comments are illustrative:

- At that time I was thinking I needed someone to take over some of the responsibilities. Mom was sending us every day to the grocery store. And she didn't want to eat what we were bringing her. And she wanted just "take out" food. I figured the first place to contact was Senior LinkAge Line®. I wanted to know what agencies were doing the meal delivery. I called around and decided Meals on Wheels was the most personable, and they were the nearest for my mom.

- I was interested in a ride – to go grocery shopping, to go to the doctor. I do a lot of doctoring, so I was interested in rides to the clinic.

- I wanted to find out what I could do when I couldn't drive anymore. I had to find someone who could take you to get groceries or to hair appointments. They can take me shopping but not to get my hair fixed, so I have to wait until my son can take me for that.

- At that time, I knew zero about the Alzheimer's thing, and it filled in a lot of blanks. It helped me to realize that I'm not the only one out there – that there are a lot of other people in my similar situation.

Five of the 13 respondents (38%) who talked with the Senior LinkAge Line® reported that they learned something new as a result of this contact. This included information about:

- Options related to transportation
- A medical condition or a medical service
- Home delivered meals options
- Chore services
Among all respondents who recalled speaking to a Senior LinkAge Line® representative, three-quarters (73%) reported that the Senior LinkAge Line® staff provided contact information to them to enable them to make direct contact with a service provider. In all cases in which this occurred, the older adult or a family member followed up with one of the service options identified by Senior LinkAge Line®.

**How older adults who did not have contact with Senior LinkAge Line® learned about and arranged for services**

Among the 17 respondents who did not have contact with the Senior LinkAge Line®, almost two-thirds (63%) said that they had learned about services by word-of-mouth, family, or friends. The next most common source of service information was health care providers (34%), including nurses, doctors, and other hospital or clinic staff. Other sources of information about services mentioned by respondents were caregiver meetings, community centers, county service agents, newspapers, and brochures. Some respondents reported hearing about services from multiple sources.

When asked how the services were arranged, most respondents indicated that they simply called the service provider directly, described their needs, and were then assisted by the service provider in setting up the service. The following comment is typical:

> I called to have them start the meals, and in two days they were being delivered. The application was over the phone.

Others reported that the process of setting up services was facilitated by a staff member at a community center, senior service program, or hospital. The following comment illustrates this route:

> It was the lady I talked to at the hospital. I asked if my husband could be on home delivered meals. She said sure, and that she would just take his name and call them. So she got them signed up, and the meals started coming.

**Satisfaction with services**

Survey respondents were asked about their satisfaction with the Title III services that they had received during the study period. These included congregate meals, home delivered meals, chore, transportation, and caregiver supports (coaching, counseling, and consultation).

The survey of older adults shows high overall satisfaction ratings for the various services received. Using a four-point scale, average item scores ranged from a high of 3.83 to a low of 3.52 across all rating categories. Scale points were defined in the following way:

- 4=Strongly agree, 3=Somewhat agree, 2=Somewhat disagree, and 1=Strongly disagree.
Specific results for each item are shown below.

2. Survey respondents’ overall satisfaction ratings for Title III services received between 1-01-2014 and 4-30-2014

<table>
<thead>
<tr>
<th>Core consumer feedback item</th>
<th>Number of cases</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The services I received have been helpful</td>
<td>27</td>
<td>3.70</td>
</tr>
<tr>
<td>I am satisfied with the quality of services received</td>
<td>27</td>
<td>3.52</td>
</tr>
<tr>
<td>The people who provided the services treated me with respect</td>
<td>26</td>
<td>3.83</td>
</tr>
<tr>
<td>The services I received helped meet my needs.</td>
<td>27</td>
<td>3.65</td>
</tr>
<tr>
<td>I would recommend the services to others who have similar needs</td>
<td>27</td>
<td>3.80</td>
</tr>
<tr>
<td><strong>Average score summing all items</strong></td>
<td>27</td>
<td><strong>3.70</strong></td>
</tr>
</tbody>
</table>

The consumer feedback questions are also intended as potential core questions to be used to assess the perception of benefit associated with a wide range of home and community-based services. A detailed discussion about using the core questions for consumer feedback is located in Appendix A.

**Statistical significance**

The relatively small number of cases included in the survey along with the high item scores across categories makes the job of detecting differences based on variation in older adult experience somewhat more difficult.

If sample sizes were larger, it appears there would be potential for statistically significant differences in the responses of older adults on two items.

- Those who received services for less than one year may be more likely to rate their satisfaction with services more highly than those who had received services for one year or more.

- Those who had recalled direct contact with the Senior LinkAge Line® may be more likely to give high marks in satisfaction with services than those who did not recall any direct contact.

While the results would typically not be reportable in a full-scale study, it is useful to report this information as part of a pilot study because it provides us with clues regarding what we might look for in a larger consumer feedback study and suggests promising lines of inquiry.

A detailed discussion about testing for statistical significance and effect size is located in Appendix B.
**Older adults’ impressions of information and support received from the Senior LinkAge Line®**

Thirteen older adults said that they had contacted the Senior LinkAge Line® for information about service options for home and community-based services. Satisfaction ratings for the various supports older adults received during their efforts to identify appropriate home and community-based services show that older adults were generally satisfied with the assistance received from the Senior LinkAge Line®.

Using a four-point scale, average item scores ranged from a high of 3.80 to a low of 3.00 across all rating categories. Older adults gave the highest overall ratings to the respect Senior LinkAge Line® staff showed toward them and to the efficiency with which their calls were handled. Scale points were defined in the following way:

- 4=Strongly agree, 3=Somewhat agree, 2=Somewhat disagree, and 1=Strongly disagree.

Specific results for each item are shown below.

<table>
<thead>
<tr>
<th>Respondent feedback item</th>
<th>Number of cases</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior LinkAge Line® staff were knowledgeable about how to get help.</td>
<td>13</td>
<td>3.08</td>
</tr>
<tr>
<td>Senior LinkAge Line® staff helped you think through your options.</td>
<td>12</td>
<td>3.25</td>
</tr>
<tr>
<td>Senior LinkAge Line® staff helped you locate services that you qualify for.</td>
<td>11</td>
<td>3.27</td>
</tr>
<tr>
<td>Senior LinkAge Line® staff helped you locate services that would have been hard to find on your own.</td>
<td>13</td>
<td>3.00</td>
</tr>
<tr>
<td>Senior LinkAge Line® staff handled your calls efficiently.</td>
<td>13</td>
<td>3.38</td>
</tr>
<tr>
<td>Senior LinkAge Line® staff treated you with respect.</td>
<td>13</td>
<td>3.85</td>
</tr>
<tr>
<td><strong>Average score summing all items</strong></td>
<td><strong>13</strong></td>
<td><strong>3.32</strong></td>
</tr>
</tbody>
</table>

It is clear from respondents’ ratings and comments that most have generally positive views of Senior LinkAge Line® and feel that accessing services for themselves or family members through Senior LinkAge Line® has been helpful. The following comment from an older adult’s daughter about the benefits of getting assistance through Senior LinkAge Line® to locate services for her parents is illustrative:
“You don’t want to think about your folks going through things like this, so it is an emotional thing. The mental health part of it, that it is OK to let other people do things for my parents. But now it is awesome, because we can now have quality time, to just go for a visit, not to do all the work for her at the house when you are there. It is a higher quality of life.”

Although respondents expressed overall satisfaction with the help they received from Senior LinkAge Line® staff, six of the thirteen who had sought information from Senior LinkAge Line® said they felt there were things that Senior LinkAge Line® could have done differently that would have made the resource more useful to them. Their suggestions included:

- More knowledge on the part of Senior LinkAge Line® of local home and community-based resources; more information on organizations or individuals in the area who provide home-based services
- Alternatives to using the phone to access Senior LinkAge Line® assistance
- Additional hours of service outside of normal business hours
- Broader knowledge on the part of Senior LinkAge Line® about resources that are difficult to obtain, for example dental services that will service low-income seniors on Medicaid
- More extensive knowledge on the part of Senior LinkAge Line® about other services (e.g. legal or financial) that are available to older adults

The following comments about the Senior LinkAge Line® are representative:

I guess it would give seniors a feeling of security if we could call them [SLL] about other things – like about an old bill you cannot afford to pay but are getting hounded for. It would be nice if there was a place you could call that was just for us that would help us with our problems to make our daily life easier.

It is funny that I never have thought about it again until you have been asking me about it now. It would be good if there were occasional reminders - a check-in reminder. I think that would be a really good idea. I think some people have it set in their minds, that [what they currently have] is all they need. They don’t even picture that there are other services available. People’s needs change.

I think we need more information in our area for things that could help people. If they could send out pamphlets that we could have out at the Senior Center. We have many very low income people in our area, and some who do not even have phones. The church does kind of contact them and help them with things.

All survey respondents, regardless of whether or not they used Senior LinkAge Line® services for their current service episode, were asked if they would contact Senior
LinkAge Line® if they needed information in the future about services available to them or a person they were caring for. Over three-quarters said that they would “definitely” or “probably” do so.

Respondents who said they “probably” or “definitely” would not contact Senior LinkAge Line® for information or assistance locating services in the future were invited to comment on their answers. Their reasons for not planning to seek help from Senior LinkAge Line® in the future are summarized below:

- Senior LinkAge Line® did not help older adult enough in the past, did not meet their needs
- Older adult will seek help from a case manager or social worker
- Older adult will rely on friends for advice about where to get services
Conclusions

This pilot study set out to examine the feasibility of identifying an appropriate sample of older adult consumers who had been served by health care providers involved in the Integrated Systems grant initiative. In addition, the pilot study sought to examine the extent to which such participants could be contacted after agreeing to accept a referral to the Senior LinkAge Line® and participate in a phone interview. The phone interviews asked participants to answer questions about the referral process itself, describe any contact they had with the Senior LinkAge Line®, and provide opinions about any services that had been received following the referral. Five core questions were also tested for broader use to assess older adults’ and their caregivers’ perceptions of benefit of services received. The results of this effort show the following:

- **A sample of service recipients could be identified, but it cannot be considered fully inclusive of all those who received Title III services as part of the Integrated Systems Grant.** Because existing record systems required that the sample be based on a selection of only those participants who had received Title III services, a significant amount of service activity was not captured. Older adults have a choice of a variety of providers, and not all services provided by an agency may be covered by Title III funds.

- **The acceptance of services occurs most often with services like home-delivered meals, congregate dining, and chore assistance, all of which meet an immediate and practical need.** Thus, it might be useful to consider these to be gateway services, or services that are simply easier for clients to say “yes” to initially. It is possible that other service needs could be assessed by agents of these gateway programs once services have begun. This could provide a more gentle on-ramp to the consumer’s acceptance of other needed services. Just a few services can help older adults remain in their homes and avoid more intensive services.

- **Recall issues were significant.** Because a health visit involves a wide range of potential communications between health providers and patients, it is not surprising that permissions granted, forms signed, and suggestions regarding possible next steps are sometimes not easily recalled following the episode. In future consumer feedback study efforts, it will be important to time any type of follow-up activity as closely to the service episode as possible or to restrict the type of information sought from older adults to a more simple focus on specific services currently being received.

- **A simple four-point feedback scale was easy for respondents to use.** However, the use of such a scale may result in an artificial compression of the variability in
responses. In other words, a scale that includes more extremes for both positive and negative responses may capture a wider variation of opinions than has been demonstrated in this study. The potential downside of expanding scale options is that consumer response to these questions may become more difficult for those with lower literacy skills, including those for whom English is a second language.

- **Older adults’ ratings of Senior LinkAge Line® services are generally positive, and the data suggest that there may be greater benefit when older adults (or their family caregivers) have direct contact with Senior LinkAge Line® specialists.** It is probable that a larger sample size would demonstrate statistically significant differences in the form of higher satisfaction ratings for those who have direct contact with Senior LinkAge Line® staff in comparison to those whose contact with the Senior LinkAge Line® occurs through an intermediary.

- **Older adults are interested in local service knowledge.** The more familiar Senior LinkAge Line® staff are with the full range of local service options (i.e., in the immediate geographical area where the service recipient lives), the more positively Senior LinkAge Line® contacts will be rated.

- **A simple consumer feedback approach is not sufficient for tracking or assessing the full range of activity that occurs as part of the Integrated Systems Grant referral process.** Based on earlier conversations with both health care providers and home and community-based service providers, much of this process is invisible to older adults, and is, in fact, intended to be invisible to them. It is inherent in the goal of creating a **seamless** referral process. The achievement of this goal will need to be viewed from multiple vantage points, of which consumer feedback is only one.
Appendix A

Review of survey items as potential core questions for consumer feedback

When testing the potential applicability of survey questions for broader use, researchers are interested in the variability of answers across items based on the response categories offered. Specifically, it is important to determine whether or not there are ceiling effects (respondents give only very high ratings) or floor effects (respondents give only very low ratings). The following table examines this variability for each item in this score item pool:

A1. Core consumer feedback questions

Number of responses within each response category by item**

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The services I received have been helpful</td>
<td>27</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>I am satisfied with the quality of services received</td>
<td>25</td>
<td>13</td>
<td>2</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>The people who provided the services treated me with respect</td>
<td>33</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>The services I received helped meet my needs.</td>
<td>28</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>I would recommend the services to others who have similar needs.</td>
<td>32</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>40</td>
</tr>
</tbody>
</table>

**Participants were asked to rate services separately and those receiving more than one service were asked to rate each service. Thus, the total number of responses exceeds the number of cases.

An examination of the response distribution for each item shows a partial ceiling effect for these items, which is not surprising given the relatively high rates of satisfaction that have been reported for these services in other surveys. Respondents offered "disagree" responses to only two of the five items. Although no item shows a complete clustering of all answers on the highest response category, the variability on the following items show the strongest ceiling effect:

- The people who provided the services treated me with respect.
- I would recommend the services to others who have similar needs.
One possible way to address this issue is to provide a wider range of response categories, which typically tends to spread out the distribution on any given item. The following scale offers one example:

<table>
<thead>
<tr>
<th>Outstanding</th>
<th>Very Good</th>
<th>Good</th>
<th>Poor</th>
<th>Very Poor</th>
<th>Terrible</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

However, the use of extended scales with a greater number of response categories, while offering a finer gradation of responses, also reduces the likelihood that the scale can be easily understood by individuals whose first language is not English. In testing consumer feedback surveys with Hmong program participants, for example, it was found that the finer gradations of response offerings were both confusing and difficult to answer.

Another potential response to ceiling effects is the inclusion of a neutral point in the scale. However research on survey items has demonstrated that the use of a neutral response category does not typically change the overall proportion of positive and negative responses.

In general, if high satisfaction rates can be corroborated through the use of other survey instruments, it may be appropriate to ignore the ceiling effects observed here, since none of the items clustered completely on the highest rating. It may also be worthwhile to identify a new or expanded set of items that could be tested with a similar population.
Appendix B

Discussion of analytics for significance and effect size

A more even distribution of cases between two groups allowed for comparison on four items:

- Receiving services for less than a year vs. one year or more
- Direct contact with Senior LinkAge Line® vs. do not recall direct contact
- Received only one service vs. received more than one service
- Received home delivered meals or congregate dining vs. other services

The results were tested for statistical significance using a t-test, which determines whether the outcomes for two groups were not likely to have occurred by chance. Differences in mean scores and best significance levels (p < .15) occurred for two items, discussed below. An assessment for effect size revealed a modest difference between the two groups for one of the items, also discussed below.

Receiving services for less than a year vs. one year or more

Those with shorter periods of service and those who have had direct contact with the Senior LinkAge Line® report higher average satisfaction scores with regard to the Title III services they received. In a larger sample, it is probable that these differences would rise to the level of significance.

Direct contact with Senior LinkAge Line® vs. do not recall direct contact

Those who have Senior LinkAge Line® contact vs. those who do not recall report higher average satisfaction scores with regard to the Title III services they received. In particular, the effect size of .564 is in the medium or moderate range. This suggests that a survey with a larger number of cases would likely show measurable differences in the consumer experience related to the receipt of services for those who have direct contact with Senior LinkAge Line® staff.

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1 The t-test used here requires more than the minimal standard of evidence for significance.
2 This means the probability that the result occurred by chance is less than 15%.
3 An effect size describes the strength of the difference between two groups. It is expressed in standard deviation units.
## B1. Statistical significance and effect size for four metrics

<table>
<thead>
<tr>
<th></th>
<th>Received services for less than one year (N=7)</th>
<th>Received services for one year or more (N=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>3.86</td>
<td>3.64</td>
</tr>
<tr>
<td>T-test of significance</td>
<td>.130 is significant at p &lt;.15</td>
<td></td>
</tr>
<tr>
<td>Effect size</td>
<td>No reliable effect size</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Direct contact with Senior LinkAge Line® (N=11)</th>
<th>Do not recall direct contact with Senior LinkAge Line® (N=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>3.82</td>
<td>3.61</td>
</tr>
<tr>
<td>T-test of significance</td>
<td>.149 is significant at p &lt;.15</td>
<td></td>
</tr>
<tr>
<td>Effect size</td>
<td>.564 = modest difference in effect size</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Received only one service (N=19)</th>
<th>Received more than one service (N=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>3.67</td>
<td>3.76</td>
</tr>
<tr>
<td>T-test of significance</td>
<td>.570 is not significant</td>
<td></td>
</tr>
<tr>
<td>Effect size</td>
<td>No reliable effect size</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Received home delivered meals or congregate dining (N=19)</th>
<th>Received other services (N=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>3.65</td>
<td>3.77</td>
</tr>
<tr>
<td>T-test of significance</td>
<td>.435 is not significant</td>
<td></td>
</tr>
<tr>
<td>Effect size</td>
<td>No reliable effect size</td>
<td></td>
</tr>
</tbody>
</table>