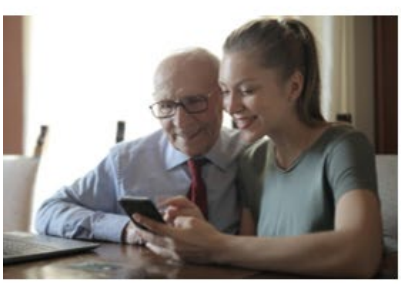
National Core Indicators—Aging and Disabilities™






NCI-AD
NATIONAL CORE INDICATORS-
Aging and Disabilities

Remote Survey Pilot Study Results

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The National Core Indicators – Aging and Disabilities™ (NCI-AD™) is a collaboration between ADvancing States, the Human Services Research Institute, and State Medicaid, aging, and disability agencies. Launched in 2015, NCI-AD gives states valid and reliable tools to help improve system performance and better serve older people and people with physical disabilities receiving publicly-funded long-term services and supports.

Overview

Between October and January 2020, seven NCI-AD states participated in a remote surveying pilot to test the effectiveness and feasibility of conducting the Adult Consumer Survey (ACS) via videoconference and telephone. Overall findings suggest remote surveying can be a feasible way to collect data provided that:

- Surveyors are appropriately trained and knowledgeable about survey administration; and
- NCI-AD protocols are carefully adhered to.

The findings also indicate that remote surveying may provide increased opportunities for survey participation for some people for whom in-person surveying poses logistical challenges.

Background

To protect the safety of participants and surveyors during the COVID-19 pandemic, NCI AD paused data collection partway into the 2019-20 cycle of the Adult Consumer Survey (ACS)—a survey historically conducted in-person. Recognizing that in-person surveying would be a challenge for states in the 2020-2021 survey cycle, NCI-AD undertook a remote surveying pilot study during the 2020-21 cycle. The aim of the remote pilot was to determine the relative effectiveness and feasibility of conducting surveys via videoconference and telephone on the various populations surveyed by NCI-AD states.

With that goal in mind, this pilot was guided by the following questions:

- What are the experiences of surveyors and survey participants who take part in remote surveys? Are there differences by remote mode?
- What are the specific barriers to completing a remote survey? Specifically, are there technological barriers that participants face?
- Are there differences in how people respond to survey questions based on remote mode (telephone compared to videoconference) or in-person compared to remote?
- Did the participants being surveyed remotely differ significantly from in-person survey participants in factors that are likely to impact the comparability of data collected through different survey modes (telephone, videoconference, in-person)?
- In what ways can mode differences (if any) be mitigated through training and other survey administration protocols?

It is important to note during the time frame in which these data were collected—the fall and early winter of 2020—states were in various stages of the COVID-19 pandemic. Given its impact on all aspects of daily life, the pandemic was likely to affect survey participation rates as well as comparisons between data collected in-person (prior to the pandemic) and data collected through telephone and videoconferences (after in-person surveying paused due to the pandemic). While analysis cannot fully distinguish between differences observed by mode and differences caused by the pandemic, the remote

pilot survey included questions to help gauge the "pandemic effect" (e.g., the ways in which the pandemic changed the person's pre-pandemic experience). Analysis considered responses to these questions to the extent allowed by the available data.

The data presented in this brief come from the seven states that participated in this pilot: Alabama (AL), Indiana (IN), Kentucky (KY), Michigan (MI), Nebraska (NE), Oklahoma (OK) and Wisconsin (WI). In addition, three states—Indiana, Nebraska, Wisconsin—had available data collected in-person during the 2019-20 survey cycle prior to the pandemic. These data were used to compare in-person and remote survey modes.

Methods

Remote Survey Administration

The NCI-AD team developed a detailed protocol for remote survey administration, along with several supporting documents and resources for states to use. Supporting materials included a NCI-AD Surveyor Training Instructions and Requirements, templates for surveyors to use for email and text communication with potential survey participants, and suggested scripts. The team also provided states with technical assistance documents such as videoconference (Zoom) FAQs and troubleshooting recommendations for surveyors.

In addition, a NCI-AD Steering Committee comprised of participating state members and their survey vendors (at state discretion) was created to help manage pilot activities, answer state questions, and discuss lessons learned related to surveyor training and the remote modalities. The NCI-AD Steering Committee met throughout the pilot period.

Of the seven states that participated in the remote pilot, four had previously participated in NCI-AD and three (KY, MI, and OK) were new to NCI-AD. All surveyors completed an in-depth standardized training on the survey process. The ACS was slightly modified for the remote pilot to include questions on the effect of the pandemic on participants and to remove questions that were not pertinent at the time of data collection. The length of the survey was not substantially altered in part to determine whether participants and surveyors would be able to stay remotely connected for the entire time it took to administer the survey. In addition, surveyors and participants completed a detailed feedback section on the survey experience at the end of each survey.

The NCI-AD team worked with the new states to support the development of sampling strategies; returning states were instructed to use a sampling strategy like the one they used in the prior year to allow for in-person and remote mode comparisons. For the purpose of this pilot, survey participants did not choose what remote mode they used to participate in the survey. Instead, states drew two random samples—one for each remote mode—using the same sample frame for each group. Surveyors were instructed on the survey process as follows:

- For videoconference, a surveyor would contact participants to gain consent, establish whether the person had technology needs (internet connection and internet-connected device with a working camera), determine whether any accommodations or supports were needed to complete the survey (such as an interpreter and/or proxy respondent), and set up a date and time to meet. All participants were required to be always visible

on the screen. States used a HIPAA-compliant videoconference platform. Most used Zoom; others used Teams or another platform approved by the state.

- For telephone surveys, a surveyor would contact participants to gain consent, determine whether any accommodations or supports were needed to complete the survey (such as an interpreter and/or proxy respondent). If the person had all accommodations and support needed at the time of contact, the surveyor could complete the survey at that time. If additional supports were needed, or if the person preferred to complete the survey at another time, the surveyor set up a future date and time to meet. All participants were required to be audible at all times.

Survey and feedback data were entered into NCI-AD's online data-entry portal, ODESA. For people who were contacted for the survey but did not participate, surveyors entered the reason for non-participation in ODESA; these data were analyzed to assess barriers to survey participation.

Data Analysis

Data analysis conducted for this study addressed the following overarching research questions:

- Were there any technical barriers encountered during remote surveying? What were they?
- What were the experiences of surveyors and participants with remote surveys?
- Were there significant differences—in terms of demographic, socioeconomic, and clinical characteristics—between participants based on survey mode (telephone, videoconference, in-person)?

The remote survey data extracted from ODESA were cleaned and processed with the same protocols used in preparing in-person data for analysis. The remote datasets for three states—IN, NE, WI—were then merged with the in-person data collected by the respective states in 2019-20 to allow for mode comparisons (in-person vs. telephone vs. video). State-specific data were then merged into a single analysis dataset.

For measures that were only included in the remote surveys—such as those related to technical factors, feedback from participants and surveyors, and pandemic-related items—distributional analysis was conducted to investigate overall averages and the minimum and maximum state-level values. The numbers were then compared between the telephone and video samples, using statistical testing techniques such as chi-square tests (for categorical variables) and t-tests (for continuous variables).

Measures that were present in both the remote and in-person surveys, such as participant characteristics and responses to survey questions, were compared, and the observed differences across the three survey modes were tested for statistical significance with either Z-tests for the difference between proportions or Analysis of Variance (ANOVA) with post-hoc testing, depending on the measurement level (categorical and continuous, respectively). Statistical tests determine whether the observed differences are within the normal margins of error to be expected in all surveys, or whether they indicate mode differences beyond those margins. Differences with an associated *p* value smaller than 0.05 were considered significant (i.e., beyond what would normally be expected in comparing two samples from the same population).

Many of the measures compared across the three survey modes were correlated with each other. Regression-based multivariate models were used to isolate the net effects of survey mode on these measures. For example, age and health status are highly correlated, making it difficult to determine whether the mode difference in average age is because younger people or people in better health are more likely to respond if offered one mode as opposed to another. To distinguish between age and health status, a multivariate model estimated the mode difference in each measure holding the other constant. Multivariate analysis controlled for unmeasured state characteristics that may produce mode differences due to different distributions of the three survey modes in each state's data.

Results

Sample

The seven participating states collectively invited 1,945 service recipients to participate in the study. Of those contacted, 973 were invited to participate in a telephone survey and 972 were offered a survey via videoconference. The overall response rate was 28.9%; the telephone sample had a substantially higher response rate (39.2%) than the video sample (18.4%). In the overall sample, the top four reasons for failure to conduct the survey were:

- Failure to reach the person for a reason other than incorrect contact information (29.5%)
- Incorrect contact information (19.8%)
- Refusal by the sampled individual or a caregiver (18.2%)
- Technology-related barriers (17.9%)

The largest mode difference in non-response reason was in technology-related barriers (telephone: 5.7%; video: 28.9%).

Survey Mode Preference

All pilot study participants were asked which of the three modes they would prefer if they had to choose. The distribution of responses was as follows:

- Video: 10.2%
- In-person: 17.2%
- Telephone: 49.2%
- No opinion: 23.5%

Survey Feedback

According to survey feedback from surveyors and participants, overall, people had positive experiences during the survey. Videoconference participants did experience more technological challenges, and surveyors were often met with respondents with limited experience using videoconference technology. Additional support from either the surveyor, a family member, or a direct support professional was often needed to support the person to get set-up and logged onto the survey meeting. Some technical difficulties that arose during videoconferencing included unreliable internet connection which disrupted video screens, and audio issues, where surveyors either repeated the questions or would use a separate phone to call. Surveyors conducting phone surveys found that rather than scheduling the survey interview for a later date, it was often easier for respondents to conduct the survey at the time of the

initial call. Audio issues (mainly due to weak or spotty connections) were the main concern with telephone surveys, but this was remedied by surveyors repeating the question or the person moving to a setting with more stable connection or using assistive technology like caption phones to facilitate the meeting.

- Surveyors noted that some respondents were apprehensive about participation due to heightened awareness of scams. Being transparent about how the survey is used and providing communication with contact information of state websites helped to increase respondents' understanding of the survey's legitimacy and earn their trust.

Survey Environment

Of the telephone survey participants, 77.2% indicated they had no trouble hearing the surveyor and 66.7% of videoconference survey participants reported they had no trouble either hearing or seeing the surveyor. When asked whether anything could have been done to make the survey better, only 3.1% of video participants and 4.9% of telephone participants responded in the affirmative.

Surveyors also reported generally positive experiences with remote surveying (telephone or video). Surveyor responses to feedback questions were distributed as follows:

- There were no technical issues that made the survey difficult: 86.9%
- The participant did not require any technical assistance from the surveyor: 89.0%
- Surveyor felt comfortable asking questions and recording answers in the remote mode: 98.3%
- Surveyor was able to build rapport with the participant: 93.5%
- Surveyor was able to notice nonverbal cues (video only): 89.6%
- Participant had no difficulty paying attention to the surveyor: 92.2%
- Surveyor thought remote surveying was as effective as meeting in person: 77.2%

Comparison of Participant Characteristics

An important consideration in assessing the comparability of different survey modes is the extent to which participant characteristics differ across modes. Although the study design did not allow the participants to select the survey mode based on their preferences, mode differences among participants can still occur due to the ease or difficulty with which certain groups can be reached or agree to respond to one mode as opposed to another.

The data in this section reflects the experiences of the three states (IN, NE, and WI), that had in-person data for comparison.

The mode differences were examined and statistically tested for many characteristics and responses. Sample sizes available for these comparisons were 279 telephone, 123 video, and 3,613 in-person survey records.

There were no statistically significant differences by survey mode for the following characteristics:

• Gender	• Race (White vs. all others)
• Hispanic ethnicity	• Often feels lonely
• Often feels sad	• Does not have friends or family outside the household who are a part of their life
• Has a legal guardian	• Skips meals due to financial worries
• Had money stolen or worries about safety of belongings	• Has an impairment: ○ Physical (cannot ambulate without assistance) ○ Cognitive ○ Vision ○ Hearing
• Has a mental health diagnosis	• Needs a lot of assistance with activities of daily living (ADLs)
• Receives sufficient assistance with ADLs	• Has sufficient transportation to get to medical appointments
• Worries about falling	• Has someone who regularly helps at home or in the community
• Has a service plan	• Has an emergency plan

The survey instrument includes some questions about quality of care. Paid staff are required to leave the room while the participant responds to these questions and surveyors are instructed to record whether this requirement was met. No significant difference between in-person and remote surveys was found regarding staff compliance with this requirement.

The following table displays statistically significant mode differences in several participant characteristics. For instance, the average age of people who completed phone surveys and videoconference surveys was statistically significantly lower than those who completed an in-person survey. The average median income of zip code area where person lives was statistically significantly higher for those who completed a phone survey.

Participant characteristics that differ by survey mode

Characteristic	Phone	Video	In-Person	TOTAL
Average age	63.7 *	58.7 *	67.0	66.7
Average median income of zip code area where person lives	$58,066 *	$48,777	$46,714	$47,276
Live alone	48.3%	58.4% *	45.3%	45.8%
Live in a rural area	10.7% *	18.9% *	6.6%	7.1%
Diagnosed with traumatic brain injury	10.1%	17.8% *	5.9%	6.4%
Can move without any aids	19.0% *	34.1%	30.8%	30.3%
Report they have a choice in all the services they receive	82.7% *	72.5%	74.9%	75.2%
Report their paid support staff changes too often	20.3% *	39.0%	35.1%	34.7%
Report they are in good, very good, or excellent health	53.1% *	62.5% *	43.1%	44.0%
Report they are more forgetful now compared to a year ago	56.8% *	40.0%	53.6%	53.4%
Have a case manager	90.6% *	94.1% *	87.3%	87.7%
Need at least some help with ADLs	91.0%	98.9% *	93.6%	93.7%
Primary language is English	88.0% *	95.6%	96.4%	96.0%
Had a proxy respondent for the survey	20.1% *	12.9%	11.2%	11.7%

* Significantly different from in-person survey participants, after controlling for state and other potentially confounding (correlated) factors. Shaded rows provide evidence that remote modes may be better able to reach vulnerable or hard-to-reach population groups.

As mentioned earlier, some of the above differences may be explained by the fact that all remote surveys and none of the in-person surveys were conducted during the pandemic ("pandemic effect"). Although the data does not allow clear distinction between pandemic and mode effects, analysis was conducted to gauge the pandemic effect, based on pilot data on participants' experiences during the pandemic.

The factor that had the largest variability was whether the participant's mental health was negatively affected by the pandemic. Using this as a proxy for the effect of the pandemic on the participant, some of the factors were explored that differed by mode and correlated with this measure. None of the factors listed in the table above were associated with this measure in a way that would suggest that the difference was due to the pandemic effect.

Discussion

Overall, findings from this pilot study suggest remote surveying is a feasible way to collect data provided surveyors are appropriately trained and knowledgeable about survey administration, and that specified NCI-AD protocols are carefully adhered to. Feedback from participants and surveyors reveals generally positive experiences and few technical challenges. States had generally greater success with completing

surveys via telephone. For both remote modes, however, issues with contacting the participant, rather than technical issues related to remote surveying, were the greatest contributor to nonparticipation. When asked which mode they would prefer if given a choice, most participants chose a remote survey. Telephone surveys were most frequently selected as the preferred mode.

Comparisons of personal characteristics of participants from three states showed few differences between those who were surveyed in-person and those who were surveyed by either telephone or videoconference. There were no significant differences in personal characteristics between these groups in terms of race, ethnicity, gender, guardianship status, and selected diagnoses. Areas where significant differences were found—such as community type (rurality), ADL support need, primary language, and diagnosis of brain injury—suggest that remote surveying may allow for increased access to certain groups that may otherwise be harder to reach. Overall, the results from the pilot show that telephone surveys and videoconferences are feasible alternatives to in-person surveying for the NCI-AD Adult Consumer Survey. This pilot did reveal a greater reliance on the use of proxy respondents in telephone compared to in-person surveys; this finding warrants additional analysis as more data from surveys conducted by telephone or videoconference become available in the future.

Based on these findings, NCI-AD will allow states to use telephone and videoconference surveying options for the 2021-22 data cycle. These findings will also be used to refine surveyor training and protocols. NCI-AD will continue to analyze, monitor, and report results by mode; future analysis will also focus on the demographics of non-responders compared to responders. Results of ongoing analysis will support the refinement of training and protocols as needed.

Limitations and Future Directions

The study has several limitations that suggest the results should be interpreted with caution. First, the participating states are volunteers rather than random selections; this limits the generalizability of the results to all NCI-AD member states. Second, the participating states used slightly different strategies for assigning respondents to telephone versus video surveys and one state conducted only telephone surveys. Although the multivariate analysis controlled for state effects in mode comparisons, some state-level factors may still be reflected in the results, suggesting caution in generalizing to the broader population of service recipients. Finally, the timing of the pilot study made it impossible to fully distinguish between mode effects and effects of the pandemic.

Given these limitations, the NCI-AD team will continue to conduct tests to gauge comparability of data collected through different modes. As more data become available in future years, it will be possible to test the robustness of the results of this pilot study and to make any necessary adjustments to survey protocols as needed.

Questions? Comments? Contact Us

For additional information on the NCI-AD initiative, please visit the National Core Indicators - Aging and Disabilities website.

We welcome your feedback and questions. If you want to discuss this report or have questions about the NCI-AD project, please contact Stephanie Giordano (sgiordano@hsri.org) and April Young (ayoung@advancingstates.org).

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