

Minnesota Senior Nutrition Program Bar Code Card Pilot

Report of Findings

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Introduction

The Senior Nutrition Task Force was established in June 2008 by the Minnesota Board on Aging to chart out a new direction for the Senior Nutrition Program. As part of their work, the Task Force updated the Senior Nutrition Priorities and Directions for 2009-2014. One of the strategies included in the Priorities and Directions is to: expand the use of technology and identify other ways to streamline data collection.

A pilot of bar code cards for daily registration was implemented May – September 2009. The goal of the pilot was to determine if there is time saved with the use of this technology, as well as if there is any increase in the accuracy of the data. Three congregate dining sites participated in the pilot:

- Warren Senior Center, Warren
- Whitney Senior Center, St. Cloud
- Lincoln Park Senior Center, Duluth.

At each site, regular dining participants were given a card with their name on one side and a bar code with ID number on the other side. Participants were asked to bring their card each day they ate lunch at the dining site and scan their card at the registration desk. The bar code was instantly recorded in the NAPIS database (AIM) and added one meal to the daily meal count for that site. It was anticipated that potential time savings would result from no longer having to record daily participation on a paper roster sheet and keying it in. It was also anticipated that the use of the cards would increase the accuracy of the daily meal counts, resulting in less time spent making corrections at the end of each month.

The findings contained in this report will be used to inform the decision by the MN Board on Aging, Area Agencies on Aging and Nutrition Service Providers regarding whether or not to expand the use of this technology to additional congregate dining sites in the state. The following pages describe the pilot experience at each of the participating sites, including results of participant surveys.

Implementation Costs

Cost Item	Detail	Cost	Source
Laptop	3 @ \$750 each	\$2,250	MBA – in-kind
Scanner – short range	3 @ \$80 each	\$240	MBA purchase
Scanner – long range	3 @ \$152 each	\$456	MBA purchase
Scanner stand	3 @ \$24.95 each	\$74.85	MBA purchase
Internet access	Initial set-up, 3 @ \$50 each	\$150	Provider purchase
	Re-wiring/adjustments 1 provider @ \$300	\$300	MBA purchase
	Maintaining connection 3 providers @ \$45/mo x 2.5 months	\$337.50	Provider purchase
Bar Code Cards	300 @ \$1.00 each	\$300	Company in-kind donation
MBA staff time	Initial logistics – 16 hrs	\$480	MBA in-kind
	Linking cards with participants (including changing participant IDs) – 10 hrs	\$300	MBA in-kind
	(3) Pilot site visits – 30 hrs	\$300	MBA in-kind
AAA staff time	Initial site visit, reprogramming scanner, conference calls with site and MBA – 3 AAAs @ 100 hrs each	\$6,000	CMCOA in-kind
Provider/pilot site staff and volunteer time	Printing rosters, highlighting pilot participants – 3 providers @ \$12 each	\$36	Provider in-kind
	Staffing registration desk, assisting participants with scanning (including set-up and take down of equipment) 3 providers @ \$2,463 each	\$7,389	Provider in-kind
	Reviewing daily scanning, making adjustments 3 providers @ \$616 each	\$1,848	Provider in-kind
	Reviewing monthly meal count, comparing against paper roster counts, making adjustments 3 providers @ \$31 each	\$93	Provider in-kind
	Conference calls with MBA, AAA 3 providers @ \$215 each	\$645	Provider in-kind
	Pilot site visit, 3 providers @ \$182 each	\$546	Provider in-kind
	TOTAL COST	\$21,745	

Lincoln Park Center, Duluth

Start Date	June 1, 2009
End Date	August 31, 2009
Total participants at site	9
Number of participants with bar code card	17
Successes	<p>For the most part, participants did not have trouble remembering to bring their cards. Some participants have memory loss so it was challenging for them to remember.</p> <p>If a card will not scan, wiping it off helped.</p>
Challenges	<p>Establishing internet connection: Attempted to first use wireless internet that is accessed one floor above dining site. This did not work. Site had to get internet connection hardwired to registration desk (cost \$300).</p> <p>Scanner: first scanner was a short-range scanner that was very difficult to use. Changed to a long-range scanner that more easily read the bar codes.</p> <p>Multiple log-in for computer and AIM database is challenging for staff and volunteer.</p> <p>When a participant's card is scanned their ID number shows on the laptop screen – not their name. It is hard to verify if the card was read correctly if the name is not seen.</p> <p>The laptop times out too quickly.</p> <p>Scanning participant bar codes (for those who forgot their card) on paper roster was very difficult.</p>
Impact	
Set-up at registration desk	20 minutes
Entering weekend data (Friday and Sunday meals were tracked by paper roster after volunteer refused to use scanner)	<p>30-45 minutes required to check roster for accuracy and make any necessary corrections.</p> <p>30 minutes spent reconciling paper roster with AIM (double book-keeping to track accuracy of scanned bar codes and meal counts).</p>
End of month paperwork	3 hours

Results of Participant Surveys (15 total responses)

1. Overall, how satisfied are you with your Diner's Card?				
Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
2	0	3	9	1
2. How difficult is it for the scanner to read your Diner's Card?				
Very difficult	Somewhat difficult	Neutral	Somewhat easy	Very easy
0	1	2	4	8
3. How difficult it is to remember to bring your Diner's Card to the dining site?				
Very difficult	Somewhat difficult	Neutral	Somewhat easy	Very easy
0	1	4	4	6
4. Would you recommend that your senior dining site continue to use the Diner's Cards?				
Yes	Neutral	No		
7	2	6		
5. Do you have any additional feedback that you'd like to provide?				
<ul style="list-style-type: none"> • Cashier very nice & does good job & always pleasant in her job. • Why is it necessary? 				

Warren Senior Center, Warren

Start Date	May 18 June 1 – participants received cards to take with them
End Date	August 31
Total participants at site	31
Number of participants with bar code card	45 use cards; 32-40 take their cards with them
Challenges	Establishing internet connection: First attempt with wireless did not work – connection was not strong or consistent enough. Had to get hardwired – delayed start date for 2 weeks.
	Scanner: first scanner was a short-range scanner that was very difficult to use. Changed to a long-range scanner that more easily read the bar codes.
	Laptop times out too quickly. Site manager had extended the “sleep period” to 50 minutes but even that was not long enough.
	Most participants had difficulties scanning. Either they could not hear beep when their card was scanned, so they scanned it multiple times, or they thought they heard it but the card had not gotten scanned.
	Participants had a hard time remembering their punch card for their meals as well as the diners card.
Impact	
Daily corrections	At the end of each day, site manager would have to check the daily meal count and make corrections before verifying the data. This added 15 minutes to her staff time each day. This was too much to ask a volunteer to do.

Results of Participant Surveys (18 total responses)

1. Overall, how satisfied are you with your Diner's Card?				
Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
0	1	11	3	1
2. How difficult is it for the scanner to read your Diner's Card?				
Very difficult	Somewhat difficult	Neutral	Somewhat easy	Very easy
0	6	7	1	4
3. How difficult it is to remember to bring your Diner's Card to the dining site?				
Very difficult	Somewhat difficult	Neutral	Somewhat easy	Very easy
0	3	5	2	7
4. Would you recommend that your senior dining site continue to use the Diner's Cards?				
Yes	No			
9	8			
5. Do you have any additional feedback that you'd like to provide?				
<ul style="list-style-type: none"> Participants felt that, to make the card worthwhile, it should be used for other purposes – discounts, contributions, etc. 				

Whitney Senior Center, St. Cloud

Start Date	May 27 July 1 – participants received cards to take with them
End Date	September 30
Total participants at site	107 average daily participation
Number of participants with bar code card	90
Successes	<p>Long range scanner worked better than short range. It made it easier for volunteers to ensure scanning was successful.</p> <p>Pilot worked better once a few volunteers were trained to watch over the scanning for the 1.5 hours of the noon meal. This allowed the site manager to get her other work done.</p>
Challenges	<p>Internet connection: Initially the internet connection from the nearby computer lab was extended to the registration desk. Midway through the pilot the internet service was stopped and took 2 weeks to get back up and running.</p> <p>Scanner: first scanner was a short-range scanner that was very difficult to use. Changed to a long-range scanner that more easily read the bar codes.</p> <p>Initially participants feared that they would lose or forget their card so they did not want to have to keep them.</p> <p>Front desk volunteers had difficulty hearing the scanner so didn't know when it had successfully scanned a card.</p> <p>Laptop times out too quickly.</p> <p>In order to accurately track who had a bar code card and who did not, Catholic Charities main office staff had to highlight pilot participants on the daily roster before sending that over to Whitney.</p> <p>Some participants were confused by the card, questioned if they still had to make a contribution if they had the card.</p>

Impact	
Set-up at registration desk	Site manager always did set-up and take down of scanning equipment. 15 min.
Volunteers sometimes oversaw participants scanning cards	Different volunteers were needed than those who would normally help staff the registration desk.
End of month paperwork	Catholic Charities office staff saved 20 minutes of time compiling monthly meal counts.

Results of Participant Surveys (51 total responses)

1. Overall, how satisfied are you with your Diner's Card?				
Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
6	9	21	4	10
2. How difficult is it for the scanner to read your Diner's Card?				
Very difficult	Somewhat difficult	Neutral	Somewhat easy	Very easy
1	8	11	12	17
3. How difficult it is to remember to bring your Diner's Card to the dining site?				
Very difficult	Somewhat difficult	Neutral	Somewhat easy	Very easy
2	4	10	12	21
4. Would you recommend that your senior dining site continue to use the Diner's Cards?				
Yes	No			
16	26			

5. Do you have any additional feedback that you'd like to provide?

1) None 2) Three No's 3) It helped to alleviate unnecessary hassle. It made identification easier. 4) Keep up the good work, what a wonderful place to come too. 5) This is a wonderful place to come too. The people are friendly and the food is good. It feels like home. 6) Takes time to do properly but ok. 7) Complete waste of money and effort. Worthless. We have enough volunteers to keep records and register diners. 8) The numbers are hard for me to see and place under camera, poor vision. 9) It shouldn't be used. 10) Bring on the good food. Does not carrying card – diner blind. 11) The card simply isn't necessary. 12) Doing one or the other. 13) Please settle on one system or the other. 14) Information believe too personal – name – ID number. 15) Your choice. 16) Flunked – too many cards in wallet already. 17) Whatever works best for your system.

Conclusion

A total of 84 pilot participants responded to a survey regarding their experience using a Diner's Card. The highlights below summarize the survey results across the three pilot sites.

- 45% of the survey respondents indicated they were neutral when asked for their satisfaction level with the Diner's Card.
- Of the remaining respondents, most indicated they were satisfied or very satisfied with the Diner's Card.
- 35% of survey respondents indicated that it was very easy to scan their Diner's Card.
- An equal proportion indicated that it was either somewhat easy or they were neutral about scanning their card.
- 68% of survey respondents indicated that it was somewhat easy or very easy to remember to bring their Diner's Card to the dining site.
- When asked if they would recommend that their dining site continue to use the Diner's Card 43% of the survey respondents said yes and 54% said no.

A significant finding of the pilot was that it did not save staff time but, rather, shifted: (1) the amount of time spent on pilot-related activities from one staff person to another or (2) the proportion of time spent by one staff person from one activity to another activity.

If this technology is disseminated more widely it would need to be implemented in a way in which the registration information could be collected electronically at the registration desk without being connected to the internet. Any further implementation will need to be put on hold until major improvements are made to the NAPIS data system. This may involve improvements to AIM or switching over to a different data system.