



Submitted by John FitzGerald

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Home Modification Program – Long-term Outcomes of Home Modifications

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Executive Summary

- 1. 70% of the respondents reported that the modifications had been completely effective, and another 23% that the modifications had been effective for the most part.
- 2. The median cost per day of use was \$7.95 (based on years of use since the modification was completed).
- The median costs per day of modifications were much lower than daily grants for hospital and long-term care beds (\$135 to \$158) or for personal care through a Community Care Access Centre (\$150 for 3 hours a day of care).
- 4. 75% were still living in their modified home.
- 5. 91% of the respondents reported that, as a result of the modifications, consumers could do things they could not do before the modification, and 41% that the modifications had had unexpected benefits.
- The most frequent new achievements were in mobility indoors and in personal care, while the most frequent unexpected benefits were greater independence, improved personal care, improved mobility indoors, and improved quality of life.
- 7. 20% of the respondents reported unexpected disadvantages of the modifications. Most of these were other limitations caused by having the modification in place, ongoing maintenance and weather. Only one quarter of these related to such

Highlights

Median cost of modifications per day of use was less than \$8. In 2008 the cost for a long-term care home placement was approximately \$135 a day -- since 2013, the costs have increased to \$158.36 a day

75% were still living in their modified home

70% of the respondents reported that the modifications had been completely effective

85% of the consumers were very satisfied with their modifications

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things as poor design, inadequate equipment, and poor installation. None were due to the actions of the Home and Vehicle Modification Program.

- 8. When asked what consumers liked most about their modifications, respondents were most likely to report improved mobility indoors, improved personal care, and greater independence.
- 9. When asked what they liked least about their modifications respondents were most likely to report bad design, defective equipment, or inadequate work by contractors. No more than three people mentioned anything that dealt with the responsibilities of the Home and Vehicle Modification Program.
- 10. Respondents were three times as likely to report what consumers liked most about their modifications than they were to report what they liked least.
- 11.85% of the respondents reported that the consumers were very satisfied with their modifications on the whole, and another 10% that they were somewhat satisfied.

Without these
modifications I would not
be able to stay in my
home - they are a
GODSEND and I am
very thankful for both of
them.

The Home and Vehicle Modification Program®

The Home and Vehicle Modifications Program[®] (HVMP) provides home or vehicle modifications to eligible individuals and families to enable children and adults with disabilities that restrict mobility to continue living safely in their homes, avoid job loss and participate in their communities. It is administered by March of Dimes Canada on behalf of the Ministry of Community and Social Services.

The Service Coordinator is responsible for determining whether or not an applicant meets the eligibility criteria, approving expenditures that comply with program guidelines and ensuring that services are delivered according to the program policies. It is the responsibility of applicants to the program to submit at least two competitive contractor quotations. If the application is approved, it is the consumer or their appointed designate who hires the contractor, oversees the modification and signs off that the modification has been completed as agreed.

It's a wonderful program.
Thank God that it is
available. It's essential
equipment.

The program is intended to serve those people most in need of assistance and to be a program of last resort. Applicants to the Home and Vehicle Modifications Program must first access any other sources of available public or private funding before being considered eligible. It is expected that people with disabilities applying for home modification will have made reasonable efforts to locate accessible accommodation before receiving assistance. Applicants with the financial means are required to make a client contribution towards the cost of modifications. Grants are limited, with some exceptions, to \$15,000 for home modifications over a recipient's lifetime.

In 2014 March of Dimes Canada undertook research to evaluate the long-term benefits of home modifications funded under the program. This report presents the results of that research.

Method

Questionnaires. Questionnaires for consumers and for people designated by consumers to represent them in making their applications were developed by the Research Manager and the consultant in consultation with other staff. The Research Manager then designed the questionnaire in three formats: paper-and-pencil, online, and telephone interview. The Research Manager and the consultant devised the interview protocols for consumers and designates. Copies of all these are provided in Appendix A.

Participants.A list of all consumers who received funding for home modifications made from 2008 to 2010 was generated from the Dynamics NAV Case Tracking System. These years were chosen for several reasons.

- 1. Consumers had to have been using the modification for several years so as to get some perspective on long-term outcomes.
- 2. It was considered that going back greater than 5 years since the modification was installed would incur memory issues
- 3. A potential contact list of over 1000 consumers was adequate to generate a representative sample.

This information was then used to locate the microfilm files that contained additional data required before the final contact list was compiled. The final list contained 1,273 potential participants, including some consumers who received funding in 2006 and 2007.

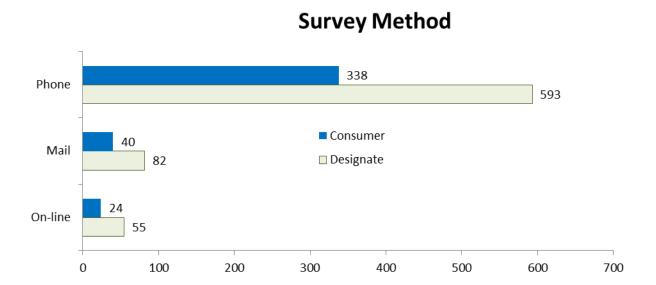
As consumers had not been in contact with March of Dimes Canada for several years, letters were mailed informing the recipients of the coming survey and reminding them what modifications were funded by the program. The letter included a form they could complete if they preferred a written or online questionnaire or wanted a designate to be contacted in their stead. A business reply envelope was provided for this purpose. If no form was returned, the consumers or their previously recorded designate (other than the exceptions indicated below) were contacted by telephone for the survey.

Response Rate

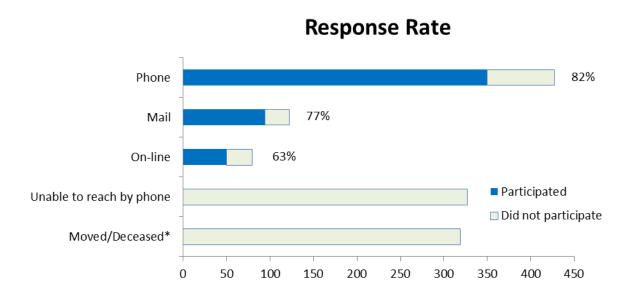
Target: All consumers who received funding for home modifications made from 2008 to 2010

Response: 79% of all consumers or designates contacted completed questionnaires or interviews.

Letters were sent to the consumers themselves unless their file indicated that the process was handled by a designate. If the designate was a professional such as an occupational therapist, social worker etc. the letter was sent to the consumer only as this individual would have only had a short-termrelationship with the consumer they represented. Letters were sent to 457 consumers and 816 delegates. Copies of the letters (one for consumers, one for designates) are provided in Appendix B. The chart below illustrates the final survey methods (139 names were removed as the recipient had moved or the consumer was deceased).



Response rates. Seventy-nine percent of all consumers or designates contacted completed questionnaires or interviews. As stated previously, 139 consumers were removed from the final contact list as they had either moved or were deceased. The response rate for the phone survey was based on those consumers who were able to be contacted by phone. Phone numbers for 180 consumers/designates had been changed since their last contact with MODC and these individuals were classified as "moved". Another 327 potential respondents were unable to be reached by phone i.e. voicemail, no answer etc.



• Designates completed surveys for a number of consumers who were deceased. They are not included in this category.

The response rate for the online survey was significantly lower than the rates for the other two types of survey methods.

Analysis

- Subgroups of the sample were compared with inferential statistical tests.
- The criterion for statistical significance was p < .01 that is, that any difference between groups have less than a 1% probability of occurring by chance.
- When multiple *post hoc* tests were performed to clarify the relationship of a variable with more than two categories to the data, the significance criterion was reduced so that the probability of one spurious difference in all the tests was less than .01.
- The relationships of several variables to replies to the questionnaire were investigated. To avoid spurious differences arising from multiple tests, analysis of the questionnaire data began with a multiple linear regression analysis to determine the most important variables. Variables with the highest correlations with the dependent variable were entered first and the other variables correlated with the residual. Any variables that correlated with the residual were then added to the equation and the process continued until the regression analysis showed no increase in the percentage of variance explained.
- If a relationship is not described, none was found.

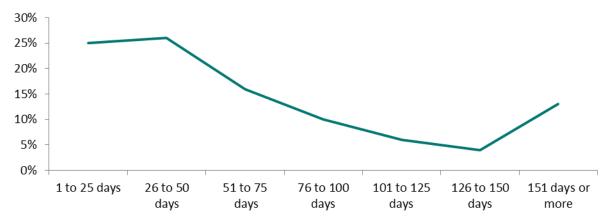
Modifications

Most of the projects were funded in 2008. Years of approval were similarly distributed among consumers who took part in the survey and consumers who did not.

Year Funding Received	#	%
2006	1	
2007	172	14%
2008	532	42%
2009	477	38%
2010	91	7%

The number of days from application to approval could be calculated for 1,213 consumers. It ranged from 1 to 478 days with a median of 49 and a mean of 75. The distribution was positively skewed (that is, there were significantly more scores below the mean than above).

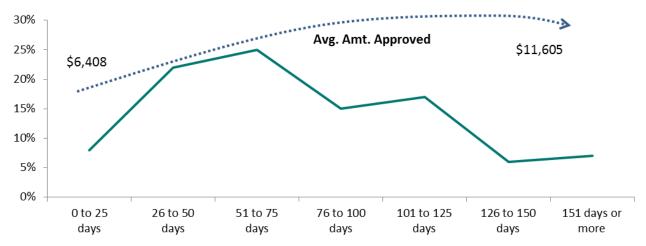
Days from Request to Approval



Projects approved more than 50 days after application received significantly larger subsidies and included more modifications than did projects approved in 50 days or less. Projects approved more than 50 days after application received a mean subsidy of \$10,600, 8% more than the \$9,800 received by projects approved in 50 days or less. They also had a mean of 4.1 modifications, while the projects approved in 50 days or less included a mean of 3.3 modifications. The number of days waiting for approval was not related to whether a consumer participated in the survey.

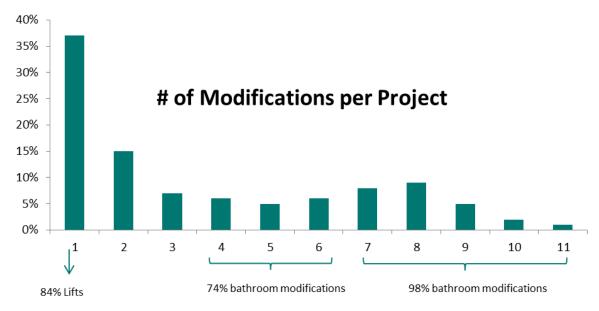
The number of days required to complete a project following approval was calculated. It ranged from 0 to 502 days with a median of 69 days and a mean of 80. This distribution was also positively skewed.

Days from Approval to Completion of Modification



Projects that required more than 69 days to complete included significantly more modifications and cost significantly more than projects that took 69 days or less to complete. The projects that required more than 69 days included a mean of 4.5 modifications, and their mean subsidy was \$11,700, while the more quickly completed projects included a mean of 2.9 modifications and received a mean subsidy of \$8,700.

The number of modifications included in a single project ranged from 1 to 11 with a mean of 3.7. Sixty-three per cent of the projects included more than one modification. Most of the consumers who had 4 or more modifications had modifications to the bathroom (roll-in shower, new/raised toilet etc.). Eighty-four percent of those who had only one modification funded had a lift of some kind (porch lift, stair glide etc.) installed.

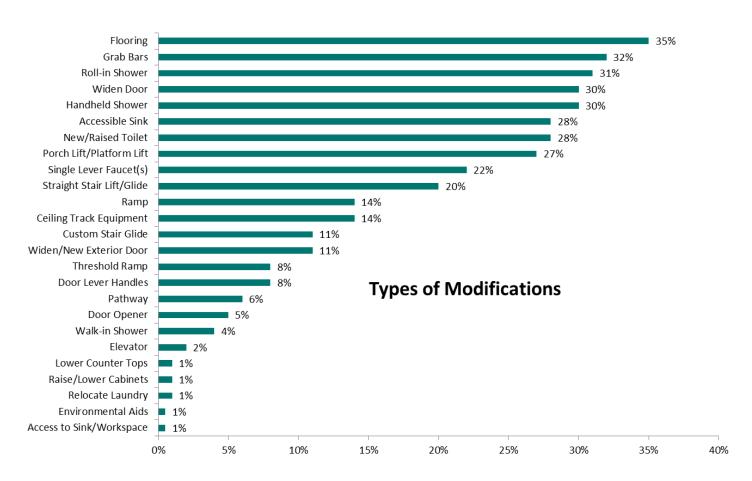


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The subsidies ranged from \$200 to \$15,000¹ (the maximum), with a median of \$11,300; 17% were for the maximum amount. Over half (59%) received the total amount they required to make the modifications. The size of the subsidy and the median numbers of modifications were not related towhether a consumer participated in the survey.

Types of Modifications

Eight different modifications to make a bathroom more accessible were among the top ten modifications completed by consumers. Porch/platform lifts and stair lifts/glides rounded out the top ten.



A principal components analysis of the modification data showed that the modifications were correlated – that is, if one was recorded the frequency with which the others were recorded was higher i.e. if a roll-in shower was installed, there is a greater likelihood that a new/raised toilet would be installed as well. The exception was ramps, whose approval was not related to approval of the other modifications.

¹ Subsidy statistics are rounded to the nearest \$100 for clarity.

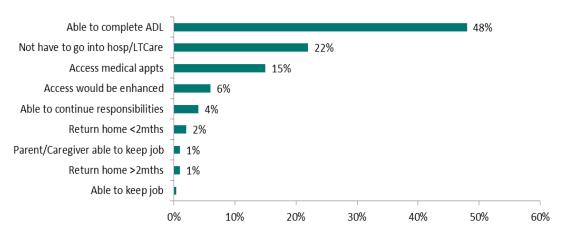
Using the categories for modifications developed by the program, the modifications can be grouped into the following type classes:

Modification Category	#	%
Entrance/Exit	599	47%
Bathroom	524	41%
Level to Level	383	30%
Bedroom	134	10%
Kitchen	27	2%
Other Areas	87	7%

Two-thirds of the consumers (65%) had some form of lifting equipment installed. Modifications for internal accessibility were installed at a ratio of 2:1 compared with modifications for external accessibility. Eighty percent of consumers had modifications made to increase internal accessibility while 47% had external accessibility modifications. One quarter had modifications to increase both internal and external access.

Half had given the ability to complete essential Activities of Daily Living (ADL) as the primary reason for needing a home modification. One quarter said it would prevent them from going into Long-Term Care or allow them to return home from the hospital.

Primary Reason for Modification(s)



The reason for funding was not related to whether the consumer took part in the survey, to the number of modifications funded, to subsidies, or to the distribution of the types of modification funded.

Modifications

Two-thirds of consumers had some form of lifting equipment installed

Forty-one percent had two or more modifications to the bathroom

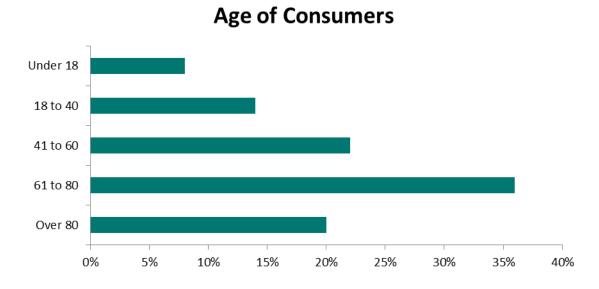
Modifications for internal accessibility were installed at a ratio of 2:1 compared with modifications for external accessibility

One quarter needed the modification(s) to avoid institutionalized care.

Characteristics of the Consumers

Age

The average age of the consumers was 59 with over half over the age of 60. Eight percent were under the age of majority (18). Consumers who took part in the survey did not differ significantly in age from the consumers who did not take part; in fact, the median age was 63 in both groups.



Sex

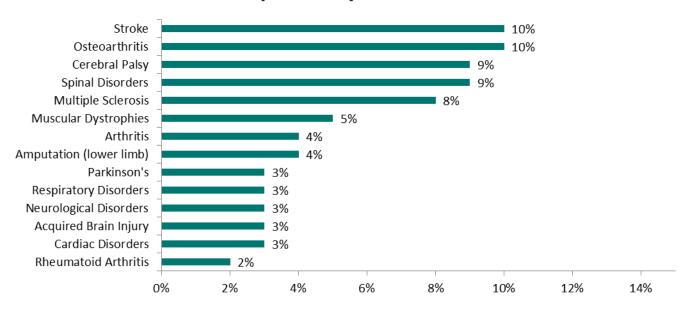
Over half (55%) of all consumers were women or girls. The percentage of women and girls was significantly higher than 50.4%, the percentage of women and girls in the Canadian population in 2010 (Robles and Milan, 2011). The percentages of females and males among consumers who took part in the survey and those who did not were not significantly different.

Primary Physical Disability

The applications for funding included a physician's descriptions of the applicants' disabilities. These were non-standard, and vaguer than ICD-10ⁱ codes and so were combined into broad categories representing, as far as could be ascertained, the most frequently reported disabilities.

No disability was reported by more than 10% of the consumers. Stroke and osteoarthritis were each reported by 10%, cerebral palsy and various spinal disorders by 9% and muscular dystrophies by 8%. On the other hand, if all arthritis disorders are grouped together, the account for 16% of the disabilities.

Top Primary Disabilities



The incidence of specific physical disabilities among consumers who did and did not take part in the survey did not differ significantly.

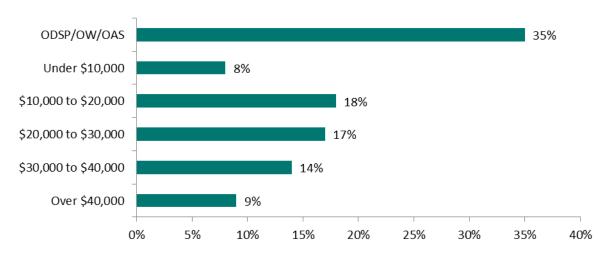
Income

The Home and Vehicle Modification Program is incometested. Applicants who are in receipt of ODSP Income Support, Ontario Works, or Old Age Security/Guaranteed Income Supplement are not required to make a client contribution. Applicants with a gross annual income over \$35,000 are required to complete a "client contribution" assessment. Various deduction calculations that take into account of a number of factors (e.g. no. of dependents) are used to determine "Assessed Income" and eligibility for the program.

It was a great help. It was a huge load off our minds because of the financial things.

Over one-third of those receiving funding were on ODSP, Ontario Works or Old Age Security.

Assessed Income



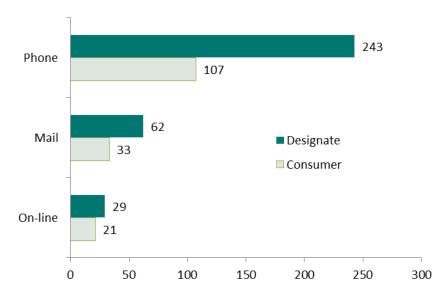
Type of Home

The type of home the applicant lived in was identified for three-quarters of the consumers. Given the nature of the program, most of the consumers lived in either a multi-level home (49%) or a bungalow (35%). Only 6% resided in an apartment, 4% in a townhouse and 3% in a condominium.

Survey Results

The Questionnaire

The sample consisted of 495 respondents. Two thirds of the respondents completed the designate version of the questionnaire and one-third did the consumer version. Designates were individuals, usually a relative, who had been appointed by the consumer requiring the modification to manage the modification process on their behalf.



• 20% of the consumer surveys were completed by someone other than the consumer themselves

Independent Variables

The relationships of the following variables to replies to the questionnaire were investigated:

- ☑ The consumer's sex
- ☑ The consumer's age
- ☑ The reason modifications were funded, defined as four categories:
 - To access medical appointments
 - To leave the hospital or avoid going into long-term care
 - To enable the consumer to complete essential activities of daily living
 - Other reasons
- ☑ Days spent waiting for approval
- ☑ Days spent waiting for completion of the project following approval

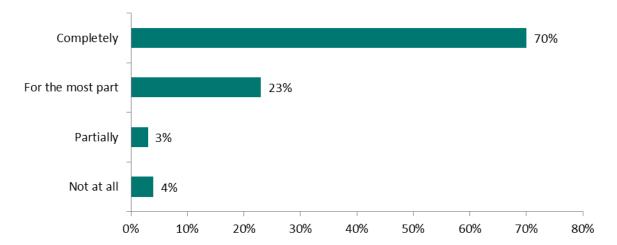
- ☑ Disability, defined as nine categories: stroke, osteoarthritis, cerebral palsy, spinal disorder, multiple sclerosis, muscular dystrophies, arthritis, amputation (lower limb), other
- ☑ Subsidy (defined in two categories as subsidies greater than \$12,100 the median in the sample and smaller subsidies)
- ☑ The type of respondent, consumer or non-consumer.

Other comparisons were made where they seemed appropriate.

Effectiveness of the Modifications

Four hundred and ninety (99%) of the 495 consumers rated the effectiveness of their modifications. The chart below shows the percentages of these 490 consumers making each possible rating.

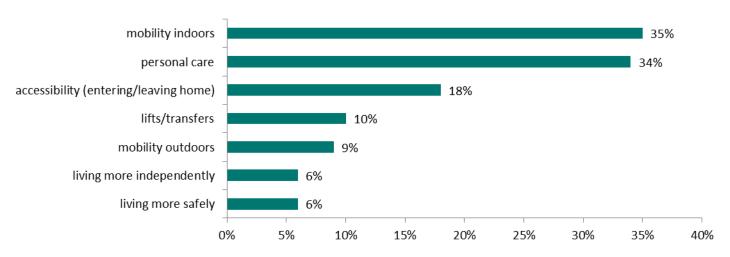
Were the modifications effective?



New Achievements

Ninety-one per cent of 483 respondents (12 individuals did not answer this question) reported that the modifications enabled the consumers who received the modifications to do things they had not been able to do before. The two top achievements were improvements in indoor mobility and personal care.

Consumer made achievements in...



• A wide range of other benefits were reported but none were reported by more than 4%.

All of these achievements except living more safely or more independently would be classified by the International Classification of Functioning, or ICF (World Health Organization, 2002)ⁱⁱ as activities, or the execution of a task or action. Living more safely or more independently would be classified at the ICF level of participation, or involvement in a life situation.

The respondents' descriptions of achievements included:

- I was trapped in the house. Now I'm mobile and independent.
- I could go shopping and go to my dialysis appointments.
- I was able to get up and down the stairs, bring in the groceries with the walker. It basically allowed me to keep my home.
- I couldn't get out from the chair except after getting the lift. Also, I can get out of bed and get into the shower.

- I can go up and down the stairs with the chair lift. It enables me to do so when I feel like it.
- Bathe. Get out of my house safely too.
- Get downstairs properly. I had a hard time before because I had a stair-lift so I had to be transferred from scooter to wheelchair to take lift, then back to scooter, so the elevator made it a lot easier.
- Get my wheel chair up and down to go to hospital 3 times a week. I use my front veranda more now.
- Get out on daily basis feeling secure as I got heavier and I don't trust people to lift me anymore.
- Getting around the house was impossible before the modification. The washroom is now more accessible, convenient and safer.
- Being able to get out of house easier and not having to strain myself to open and shut doors.
- It allowed me to get out of the house.....Also, I get to spend time outside with the grandkids.
- It helped the staff so they would not injure themselves when transferring me.
- My wife is in a wheel chair. She couldn't get into the bath area, now independently rolls in. The grab bars, she uses them to help her to get to various areas in the bathroom. She can do it herself, and get outside as well.
- She now lives in home independently for the past 6 years, she can cook because of the flat top stove, the pan thing

Achievements

I was trapped in the house. Now I'm mobile and independent.

She now lives in home independently for the past 6 years...she just receives a little house keeping assistance.

I was able to get up and down the stairs, bring in the groceries with the walker. It basically allowed me to keep my home.

Getting around the house was impossible before the modification.

•••

allows her to wheel on. Able to do her own dishes. She just receives a little house keeping assistance.

- Get in and out of the bedroom and bathroom with his wheelchair by himself. He can shave now. He is pretty self-sufficient now and can go places with his wheelchair throughout the house.
- She can use the toilet unassisted. She can walk in and take a shower.
- To be able to get out of the house. Without the lift it would be impossible as we have a lot of steps. I would have to carry her.
- It made it easier for her to get in and out of the house as her mobility was deteriorating and she had a hard time walking down the stairs. The lift allows me to get her in and out of the house now.
- Walking in and out of house. She is able to use the pathway and walk on it on her own. It was quite unsafe prior to the work being done since she had mobility and vision issues. Prior it was unsafe for her to enter and exit house.
- Getting up and down the stairs and taking a bath was difficult. It was much safer after.
- Go to the show, the mall, the doctor, the park, around the block, anywhere and everywhere.

Unexpected Benefits

Four hundred and sixty respondents (93% of all 495) reported whether the modifications had had any benefits they had not expected. Forty-one per cent indicated that there were unexpected benefits. These were more independence (9%), improved personal care (7%), greater mobility indoors (6%) and an improved quality of life (5%). A wide range of other benefits was reported but none were reported by more than 4%.

Personal care and mobility indoors would be classified at the ICF level of activity, and greater independence and improved quality of life at the level of participation.

Their descriptions of unexpected benefits included:

- I get out more and do more things. I have a lot of independence. I do not have to worry about falling anymore. I am much more comfortable in my own home. I do not need people to help me.
- It makes me feel so much better. It is a boost for me. I
 was able to do things that I was unable to do before. I
 was able to get in the shower.
- I can do a lot more on my own. I can come and go as I please. I can do some laundry and cleaning.
- It made it easier than I thought it would to do the things that normal people can do. Before I could not get on and off the toilet or in and out of the tub.
- The family do not have to have to come and assist me going up and down the stairs. Now I go up and down the stairs myself.
- Once they widened the doors he could use the computer. He could get himself into the bedroom to get his clothes.
- It gives her more independence with showering and in the bathroom. It makes it easier for people who assist her.
- It gave her independence that she never expected.
- It made her more confident going outside. It made it a lot easier for her to go out.
- I can take her to church. She is now able to go to the bathroom with help. We can go grocery shopping.

Unexpected Benefits

I get out more and do more things. I have a lot of independence...I am much more comfortable in my own home. I do not need people to help me.

We thought she would just do the basics, we didn't expect her full independence in the past 6 years.

My husband could stay home and not have to go into a nursing home. He died in his own bed. Comfortably.

The modifications are now helping me since I am now handicapped.

The Co-Op realized the importance & decided to purchase three other openers for accessible apartments

- It has made him happy. It has had a massive benefit.
- Improve the quality of life for her and the family. It was easier than using a ramp. With a lift it was an easy and safe way to go in and out of the house.
- We thought she would just do the basics, we didn't expect her full independence in the past 6 years.
- My husband could stay home and not have to go into a nursing home. He died in his own bed. Comfortably.
- When he came home I was not expecting him to be as disabled as he was.
 The lift for the bathroom was extremely helpful. There are days when he could barely move. It was more helpful than I thought it would be.
- I was able to donate the lift that was in my mom's home for someone's elderly parents. The lift was then passed along to another person. It was put to good use.
- My son feels more secure and safe because he is not worried about anyone dropping him. With the lift we do not have that worry anymore.
- The most important benefit was to move from inside the house to outside the house to get to doctors' appointments or to go for other appointments.
- Freedom and self-dignity.
- Freedom! And peace of mind.
- The modifications are now helping me since I am now handicapped.
- The modifications gave me back the abilities to do things in my apartment that
 I was previously able to do before my condition progressed.
- Freedom! Without the modifications I would be completely house bound. Because of the lift I can visit with family and go about the life that I was missing.

• The Co-Op realized the importance & decided to purchase three other openers for accessible apartments

Unexpected Disadvantages

Four hundred and seventy-nine respondents (97% of all 495) reported whether the modifications had had any unexpected disadvantages; 20% of the 479 reported that they had.

The only disadvantage mentioned by as many as 5% of the 479 respondents was that the modification was poorly designed e.g. equipment problems, poor installation. Five percent reported that they had not considered the limitations caused by having the modification(s) installed e.g. less room on the stairway for others after a lift was installed. Another 5% mentioned the cost of maintenance such as replacing batteries in lifts and 2% reported the influences of bad weather on external modifications.

Consumers were marginally more likely than non-consumers to report disadvantages. 27% of 124 consumers reported disadvantages, and 18% of 347 non-consumers.

Consumers and designates whose modifications were made to increase external access only were more likely to report disadvantages than were consumers and designates whose modifications were made to increase internal access. Thirty per cent of 73 consumers and designates reporting about modifications made to increase only external access reported disadvantages, while only 16% of consumers whose modifications were made to increase on internal access reported disadvantages; 23% of consumers and designates whose modifications were made to increase both types of access reported problems.

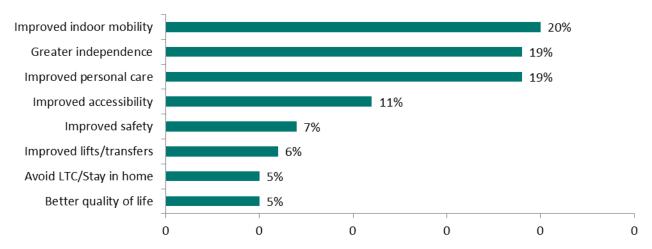
Twenty-two respondents reporting about modifications made to increase external accessibility described the unexpected disadvantages. The most frequently reported disadvantages were operating problems in winter (reported by 5 respondents, or 23% of the 22) and equipment problems (reported by 4 respondents, or 18%).

Forty-six respondents reporting about modifications made to increase internal accessibility described the unexpected disadvantages. The most frequently reported disadvantages were poor design of the modification (13 respondents or 28%), poor installation, and equipment problems (each of the last two reported by 9 respondents, or 20%).

What respondents liked most about the modifications

Four hundred and sixty-nine respondents (95% of all 495) reported what the consumer liked most about the modifications consumers received. The chart below shows the percentages of respondents making the most frequent reports. To facilitate comparison with reports of what consumers liked least, the percentages are percentages of all 495 respondents, regardless of whether they answered the question.

What was liked most about the modification(s)



Although the making of modifications to improve internal access was not related to age, older consumers were significantly more likely than younger non-consumers to report improvements in indoor mobility as what they liked. Thirty percent of consumers who were over 63 years old (the median age in the survey sample) reported that they liked improvements in indoor mobility best while, among younger respondents, 12% of 86 consumers and 16% of 163 non-consumers reported that improvements in indoor mobility were what the consumer liked best; this difference was not statistically significant.

Among non-consumers, older respondents were significantly more likely to report improvements in outdoor mobility as what the consumer liked best. Among consumers there was no significant difference between older and younger respondents in reporting this.

Older consumers were most likely to report improvements in personal care as what they liked most; 15% of the 39 reported this. The distributions of modifications recorded for respondents did not differ between respondents who were consumers and those who were not.

Consumers who waited longer for their applications to be approved or for their projects to be completed were significantly more likely to report improvements in personal care as what they liked most; this is probably a reflection of the longer time required to approve and complete washroom installations and renovations. Twenty-seven percent who waited longer than the median time for their projects to be completed reported improvements in personal care as what they liked most, while 13% who waited shorter times reported this.

Specific comments included:

- Mobility the ability to come and go whenever I wish. It
 has added value not only to my home but to my life in
 ways it is hard to verbalize.
- He was able to do the things he wanted to do, and feel proud of it.
- She has been able to come home and live with us again.
- The stair glide has been wonderful. My mom is more independent now and feels safer in that she could exit the home now in case of a fire, independently. She is able to attend all medical appointments as the stair glide provides easy access to the outside for WheelTrans pickup.
- I have more flexibility in scheduling the worker that assists [my daughter] with her day to day activities.
- It gave us so much more comfort doing the everyday things - showering, maneuvering through the house and not hitting every doorway, being able to take [the consumer] out to the back while doing yard work and not worrying about leaving her in the house alone. Such a sense of peace while doing the necessities of life.

What was liked most

Mobility – the ability to come and go whenever I wish. It has added value not only to my home but to my life in ways it is hard to verbalize.

She has been able to come home and live with us again.

To have access to the place where we live.
This is a bungalow with two steps only. I could not carry a grown up woman up the steps.
Now I put her on the platform lift and we are into her bedroom. It made it possible for her to live in our home.

Full independence any young lady dreams of to live on her own.

- The best part is the freedom to move around and not feel as cramped.
- The fact that I could shower everyday on my own now and that I don't need any more assistance.
- It is easier for me to take a shower. Easier for me to use the washroom because it is higher.
- Easier to get on and off the toilet.
- The fact that he got up stairs safely and freely even to get something from above or to have shower and not having to stay downstairs all the day long until it is time for bed.
- To have access to the place where we live. This is a bungalow with two steps only. I could not carry a grown up woman up the steps. Now I put her on the platform lift and we are into her bedroom. It made it possible for her to live in our home.
- There was no other way to look after him without the equipment.
- Independence. The ability to be more independent. She doesn't need assistance at all times and the freedom to go with that. It gave us peace of mind knowing that the bathroom was safe and that she could take a bath safely and without falling.
- The fact that he can do things independently. He got back his confidence because of this.
- She loves her shower. It makes it a lot easier to go in with her wheelchair. She has a chair to sit in and she can shower independently. There is a sliding door on the washroom which makes it easier for her to get in.

What was liked most

The freedom of being able to go from one place to another. To be able to go outside the house.

He can manage his care independently. He can live on his own.

That the ramp helped the whole family. Not just him. There was no way to get him out without the ramp. This way he is more independent.

It gives him more independence. It also lightens the load on us. As we get older we cannot do things we could do thirty or forty years ago. At that time his was much lighter.

That she was able to live a normal life and take part in life.

- The freedom of being able to go from one place to another. To be able to go outside the house.
- Basically the most important thing is the freedom to go out.
- That we can move him easier, preserving his integrity.
- The porch lift is her favourite as it gives her freedom to go outside.
- To have a shower, to feel that she is clean and warm as the nurse sits her on something in her roll-in shower.
- The ease of using the equipment. It saves our health and it helps to move him. Before I was physically picking him up and now the lift does it for me.
- He can manage his care independently. He can live on his own.
- The ability to get out of the house. March of Dimes was the only organization that came through for us at that time. The March of Dimes was very helpful. The lady I dealt with was very helpful.
- The freedom to stay in their home. They could go up and down the stairs to the bedroom and bathroom. They could get to the laundry facilities in the basement.
- The freedom to get into and out the tub without worrying about needing help from someone as that was awkward. He had a seat in which he enjoyed also.
- It gives them their freedom to enter and exit the house. It gives her access to the whole house.
- She is able to her laundry, cleaning the rec room....Without the elevator she would have been stuck on one floor and would be unable to leave the house.
- That the ramp helped the whole family. Not just him. There was no way to get him out without the ramp. This way he is more independent. The ramp is not slippery when it rains. The ramp is easy to maintain when it snows and it was well built.

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- That she was able to live a normal life and take part in life. This enabled her to function better.
- It gives him more independence. It also lightens the load on us. As we get older we cannot do things we could do thirty or forty years ago. At that time his was much lighter.
- Full independence any young lady dreams of to live on her own.

What respondents liked least about the modifications

One hundred and fifty-eight respondents (32% of all 495) reported what the consumer liked least about their modifications. Respondents were three times as likely to report what consumers liked most about their modifications than what consumers liked least; this difference was statistically significant.

Only two types of report were made by at least 5% of the 495 respondents:

- 13% reported that at their equipment or materials were defective, or that the modification was badly designed. The following are examples of this type of report:
 - The outside chair is hard to work in winter as a lot of snow is falling here.
 - The lift didn't work.
 - The whole system is awkward. Using it is cumbersome.
 - Rusting in porch lift.
 - Just the unit itself, we are still having problems, she is afraid to use it as it stopped in the middle once and we had to pull her out.
 - There was a closet that we had to cut out because of the modifications.
 - It increased the height to the back door. Made access to the back door more difficult.

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- We would have made it a heavier door and a bit wider.
- The contractors were cheap on the fixtures. They should have been upgraded a bit. We added more money to the project ourselves. The contractors should have given us more alternatives in terms of higher end shelving and toilet. There are better ones out there.
- **E** 6% reported that the contractor's work had been inadequate.

Very few of the reports dealt with responsibilities of the Home and Vehicle Modification Program. The most frequent of the few that did – that the wait for approval was long – was reported by only 3 respondents.

Advice for others planning modifications

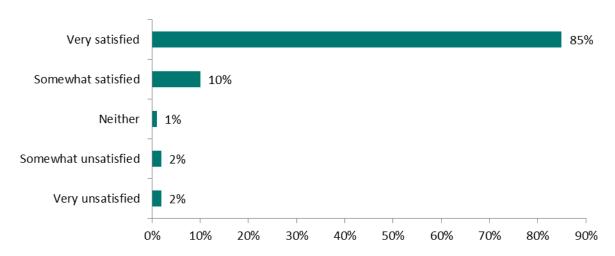
Three hundred and eighty-four respondents (78%) provided advice for other people planning similar modifications.

- ☑ The most frequent advice was simply to apply to the program; 28% of the respondents who answered the question reported this (they constituted 22% of all respondents).
- ☑ The second most frequent advice was that the modifications the respondent was discussing had been helpful; 18% of the respondents who answered the question reported this (they constituted 15% of all respondents).
- ☑ 8% of the respondents who answered the question provided advice about the best way to complete specific modifications.
- ☑ 8% advised doing research or being careful in planning the modification e.g. consideration regarding inclement weather conditions when installing a porch lift
- ☑ 8% recommended hiring good tradespeople (14% of consumers whose bathrooms were modified advised this compared with 4% of other consumers)

Satisfaction on the whole

Four hundred and eighty-eight respondents (98%) reported consumers' satisfaction with their modifications on the whole. The chart below shows the percentages of these 488 consumers making each possible rating.

Satisfaction with modifications



Respondents who were consumers were less likely than respondents who were not to report that they were very satisfied. Seventy-six per cent of consumers reported that they were very satisfied, and 89% of non-consumers reported that the consumers for whom they were replying were very satisfied.

Respondents who waited less than 70 days following approval for their projects to be completed were more likely than those who waited longer to report that they or the consumers they represented were very satisfied. Ninety-one percent of respondents whose modifications were completed within less than 70 days of approval reported that they or the consumers they represented were very satisfied, while 81% of those whose modifications took longer to complete reported this. The median wait in the group whose modifications took longer than 69 days from approval was 108 days.

Later Modifications

Four hundred and eighty-four of the 495 respondents (98%) reported whether any modifications had been made to the dwelling after the funded modification. 25% of these 484 respondents reported that further modifications had been made ², and 119 the types of modification that had been made.

Two types of modification had been made by 5% or more of the 484 respondents who answered the general question: modifications to improve mobility indoors (8%) and modifications to improve personal care (5%).

Current Housing

Whether consumers were still living in their modified homes could be determined for 489 of the 495 consumers:

- ☑ 365 (75%) were still living in their modified homes

The type of housing in which consumers were living was provided for all but 2 of the 365 consumers still living in their modified homes; 91% were living in houses and 6% in apartments. The year in which modifications had been approved was not related to whether consumers were still living in their modified homes.

The time that consumers who had moved or who had died had spent in their modified homes before moving was calculated by subtracting the year of completion from the year of moving; this time could be calculated for 81 of these 124 consumers. The median stay before moving or dying was 3 years. The median year of completion was 2009.

The respondents for 37 consumers who had moved provided reasons that they had moved. Three reasons were provided by more than 2 consumers each:

- ☐ The consumer needed more help (reported for 38% of these 37 consumers)
- ☑ Further development of the consumer's medical condition (16%)
- ☑ Development of a new medical condition (16%)

² A few respondents reported modifications that were not made to accommodate physical disability, but they have been excluded from this count.

Adults in the Household

The number of adults in the household was reported for 395 surviving consumers. The number ranged from 1 to 6 with a median of 2.

Respondents who were consumers reported significantly fewer adults in their households than other respondents did; 32% of consumers reported that they lived in households with only one adult, while 17% of other respondents reported this.

Other Services

Many respondents were receiving regular help with personal care (62% or 244 people), transportation (36% or 140 people) or housekeeping (31% or 123 people) from a company or agency.

All three questions were answered for 386 consumers:

- 24% were receiving none of the three services
- 36% were receiving one.
- 27% were receiving two.
- 12% were receiving all three
- The median number of services received was 1.

Consumers with multiple sclerosis were more likely than consumers with other disabilities to be receiving these services; 91% of 34 respondents with multiple sclerosis were receiving at least one regular service from a company or agency, while 75% of 352 consumers with other disabilities were receiving at least one such service.

Further Comments

Two hundred and eight respondents made further comments. The following types of comment were made by 5% or more of these respondents.

- A general positive comment (47%)
- The modification was helpful (12%)
- The consumer was able to stay in their own home (9%)

- The consumer's quality of life improved (7%)
- The consumer became more independent (5%)
- The consumer needs more modifications (5%)

The specific comments included:

- It has just been wonderful. If we didn't receive this we would have moved out of our home long time ago.
- It's a wonderful program. Thank God that it is available. It's essential equipment.
- The March of Dimes have been so supportive and have really helped us out. It has given my wife the freedom and liberty to go outside the home.
- This was a wonderful program. It helped her live as comfortably as she could considering the circumstances.
 She lived as comfortably as she could until she passed away.
- I'd really want to thank them very much for helping. It was a blessing.
- Thank March of Dimes very much. They made my husband's life easier to get to the car. He could go and take his wheelchair for rides around the sidewalk by himself and not be stuck in the house.
- I sing the praises about the March of Dimes whenever I can and wherever I can.
- It would have been harder for me to live without this blessing.
- I'm 83 years old and I have lived 47 years of them in this house, and I enjoy being independent in it.

Everyone Benefits

We could never have managed without the lift, it was like God sent it. It was really greatly appreciated. I donated it for another elderly couple after [my spouse] passed away.

These mods have allowed him to remain in his home. He did not want to move to a LT care facility nor did we want him to. This has allowed him to be in our everyday life and not give up in spite of his illness.

When we moved we were able to sell the house to someone who had a special needs child so the modifications continue to be used.

Thanks for making life easier for me, my husband, and my PSWs.

- We could never have managed without the lift, it was like God sent it. It was really greatly appreciated. I donated it for another elderly couple after [my spouse] passed away.
- It has allowed our daughter a higher degree of freedom and independence with the washroom.
- The program is amazing!
- It made her life more rich and more involved, otherwise she would have been trapped or would have had to leave her home which she did not want to do.
- It made his life easier and gave him some self-esteem as it was hard and degrading for him before.
- It was a great help. It was a huge load off our minds because of the financial things.
- The benefits of these modifications have had an enormous impact on my life. I can function to do simple day-to-day tasks. I am greatly in your debt.
- Thanks for making life easier for me, my husband, and my PSWs.
- Without OMOD funding my mother would have had sell her house and move out of the neighbourhood she has lived in for over [number omitted] years.
- These mods have allowed him to remain in his home. He did not want to move to a LT care facility nor did we want him to. This has allowed him to be in our everyday life and not give up in spite of his illness.
- After my husband's passing equipment was given to a family [in which the] husband had Parkinson's.
- Without these modifications I would not be able to stay in my home-they are a GODSEND and I am very thankful for both of them.
- When we moved we were able to sell the house to someone who had a special needs child so the modifications continue to be used.

Costs

The final sample for estimation of costs was restricted to 314 applications approved in the fiscal years 2008-09 and 2009-2010 for which the time the modifications were used could be calculated; 184 (58%) were approved in 2008-2009. Operating costs per subsidy were \$1,366 in 2008-2009 and \$1,846 in 2009-2010.

- ☑ For consumers who were still living in modified homes the number of days of use of the modifications was from the date of approval to December 31, 2013.
- ☑ For consumers who had moved or died the number of days of use was calculated from the date of approval to December 31 of the year before they moved or died (respondents provided only the year of the move or death).
- ☑ 82% of the modifications approved in each fiscal year were still in use at the time of the survey.
- ☑ Modifications approved in 2008-2009 were in use for a median of 1,833 days (approximately 5 years); the longest possible period of use was 2,072 days.
- ☑ Modifications approved in 2009-2010 were in use for a median of 1,544 days (approximately 4 years and 3 months); the longest possible period of use was 1,707 days.

Grants awarded to allow the performance of essential activities of daily living

One hundred and sixty-four grants (52% of the grants awarded in this sample) were made for this reason.

- ☑ The number of days of use of the modifications ranged from 38 to 2,091, with a median of 1,737 days (approximately 4 years and 9 months).
- ☑ The cost per day was calculated by adding the operating cost per subsidy for the year to the subsidy then dividing by the number of days of use.
- ☑ The median cost per day was \$7.83.
- ☑ In 2008 the grant for 3 hours a day of care from a Community Care Access Centre was approximately \$150 (Ontario Community Support Association, 2008).
- ☑ 31% of this group were receiving help with housekeeping from a company or agency, and 65% were receiving help with personal care; however, the percentages of consumers whose services were subsidized by the Ministry of Health and Long-Term Care, Ontario, was not known.

Grants awarded to avoid moving to long-term care or hospital

Fifty-two grants (17% of the grants awarded) were made for this reason.

- ☑ The number of days of use of the modifications ranged from 147 to 2,071, with a median of 1,511 days (approximately 4 years and 2 months).
- ☑ The median cost per day was \$8.15.
- ☑ In 2008 the provincial government grant for a bed in an Ontario long-term care home was approximately \$135 a day (Ontario Community Support Association, 2008).
- ☑ Since August 1, 2013 the Ontario Ministry of Health and Long-Term Care has paid a grant of \$158.36 a day (Ministry of Health and Long-Term Care, 2013).

Grants awarded to allow consumers to return home from hospital or a similar agency

Nine grants were awarded to allow consumers to return home within two months

- ☑ Another 3 grants were awarded to allow consumers to return home after a longer time
- ☑ The number of days of use of the modifications ranged from 83 to 2,041 with a median of 1,735 days (approximately 4 years and 9 months).
- ☑ The median cost per day was \$8.60.
- ☑ In 2008 the provincial government grant for a bed in an Ontario long-term care home was approximately \$135 a day (Ontario Community Support Association, 2008).
- ☑ Since August 1, 2013 the Ontario Ministry of Health and Long-Term Care has paid a grant of \$158.36 a day (Ministry of Health and Long-Term Care, 2013).

Grants for all reasons

- ☑ The median cost per day of all grants was \$7.95.
- ☑ The median cost per day of grants to consumers who were not still living in their modified homes, because they had either moved or died, was \$13.05.

DISCUSSION³

Modifications

About half the surveyed consumers received grants to enable them to perform essential activities of daily living, about a fifth to help them avoid entering hospital or long-term care, and about a seventh to help them get to medical appointments required to prolong their lives. These proportions were similar among consumers who took part in the survey and those who did not.

Lift equipment – stair lifts, porch lifts, ceiling track equipment, elevators, etc. – was by far the most frequently funded type of modification. About two-thirds of the grants funded lift equipment, while the next most frequently funded type of modifications were those for the bathroom (41%).

Seventy per cent of 490 respondents who provided a rating reported that their modifications (or the modifications made for the consumer for whom they were replying) had been completely effective, and another 23% reported that they had been effective for the most part.

Most of the respondents (93% of the respondents who answered the question about new achievements, and 91% of all respondents) reported that the modifications had enabled the consumers who received the modifications to do things

It has just been wonderful. If we didn't receive this we would have moved out of our home a long time ago.

they had not been able to do before. The most frequently reported achievements were in indoor mobility and personal care.

Forty-one per cent of the respondents who answered the question about unexpected benefits, and 38% of all respondents, reported that the modifications had produced unexpected benefits. A wide range of benefits was reported, the most frequent of which was higher independence.

³ The general response rate for the survey was 79%. This is important because the sample was self-selected. Any sample in which participants are allowed to decide whether or not to join the sample will not be representative of the entire population from which it is drawn, but only of the types of people in the sample who take part in surveys. One also might have suspected the response rate would be low because several years had elapsed since any of the modifications had been funded. However, the response rate was high, and that guarantees that the results will be representative of the great majority of the population of consumers.

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Achievements and benefits were reported at the ICF levels of both activity and participation. That is, improvements were not limited to the facility with which the consumers performed tasks but also affected many consumers' engagement with the world.

Unexpected disadvantages of the modifications were reported by 20% of the respondents who answered the relevant question, and by 19% of all respondents. The most frequently reported disadvantages were inadequacies of the design of the modification, equipment problems, and poor installation, none of which are responsibilities of the Home and Vehicle Modification Program.

Ninety-five per cent of all respondents reported what the consumers liked most about their modifications, while only 32% reported what they liked least. Most frequently reported as what consumers liked most were improved mobility, improved personal care, and greater independence. Most frequently reported as what consumers liked least were defective materials or equipment, poor design of the modification, and inadequate work by the contractor. Very few of the reports dealt with responsibilities of the Home and Vehicle Modification Program. The most frequent of the few that did – that the wait for approval was long – was reported by only 3 respondents.

Ninety-eight per cent of the respondents reported the consumers' satisfaction with their modifications on the whole. Eighty-five per cent were very satisfied, and 10% somewhat satisfied. Consumers reporting for themselves were less likely to report that they were very satisfied, but 76% were still very satisfied. Ninety-five per cent of consumers reporting for themselves were either somewhat or very satisfied, which was the same percentage as the comparable percentage of other respondents.

In general, then, consumers were largely satisfied with their modifications, the modifications had had significant effects in their lives, and few of the problems some consumers had with them were the responsibility of the Home and Vehicle Modification Program.

The median cost of modifications per day of use was less than \$8, considerably less than the cost per diem of alternatives that many of the modifications were intended to help consumers avoid. The cost per diem of modifications for consumers who were no longer living in their

modified homes, because they had either moved or died, was just above \$13, so life expectancy and changes in medical condition had not resulted in wasteful spending.

In summary, the home modification funding by the Home and Vehicle Modification Program reviewed in this report has been carried out judiciously and effectively.

I sing the praises about the March of Dimes whenever I can and wherever I can.

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ⁱ ICD-10 is the 10th and current revision of the International Statistical Classification of Diseases and Related Health Problems (ICD), which is administered by the World Health Organization. It is a set of standard classifications that facilitates the identification of disorders that may be known under more than one name (for example, arthrosis/osteoarthritis or paraplegia/tetraplegia). The ICD is used to classify diseases and other health problems for clinical and epidemiological uses (including research), quality assessment, comparison of national mortality and morbidity statistics, reimbursement, and resource allocation.

- 1. Body functions (physiological, including psychological, functions of the body)
- 2. Activity (execution of a task or action by an individual)
- 3. Participation (involvement in a life situation, or functioning at the level of the whole person in a social context) (World Health Organization, 2002)

ii ICF defines three levels of functioning:

Home and Vehicle Modification Program Client Survey

On [Date Approved], you received funding for the following modifications to your home: [Mod Apprvd1-10]. These modifications were completed on [Date Completed].

1.	When you requested funding from the Home and Vehicle Modification Program you said that the modification(s) would [ImprovementinAccessibilityMobility]. Have the modifications had the effects you expected them to have?
0	Completely
0	For the most part
0	Partially
0	Not at all
0	Can't say
2.	Have the modifications allowed you to do anything you couldn't do before you made them?
0	Yes
0	No (go to Question 3)
0	Don't know (go to Question 3)
IF Y	YES , what could you do after that you couldn't do before?
2	Have the modifications had any <i>benefits</i> for you that you hadn't expected them to have?
3. O	Yes
0	No (go to Question 4)
0	Don't know (go to Question 4)
IF Y	YES, what unexpected benefits did the modifications have?
4.	Have the modifications had any disadvantages that you hadn't expected them to have?
0	Yes
0	No (go to Question 5)
0	Don't know (go to Question 5)
IF '	YES, what unexpected disadvantages did the modifications have?

5. —	What have you liked the MOST about these modifications?
6.	What have you liked the LEAST about these modifications?
7. —	What advice would you give people who are planning similar modifications?
	How satisfied have you been with these modifications on the whole? Very unsatisfied
0	Somewhat unsatisfied
0	Neither satisfied nor unsatisfied
0	Somewhat satisfied
0	Very satisfied
9. O	Did you have any other modifications made to the same house at a later date? Yes
0	No (go to Question 10)
0	Don't know (go to Question 10)
If Y	'ES, what other modifications were made to the house?
eval	we would like to ask some questions about you. Your answers to these questions will help us a great dec uating the success of the Home and Vehicle Modification Program. Of course, if you don't want to answe them, you don't have to. However, we would greatly appreciate any information you can give us.
10.	In what type of accommodation are you currently living?
0	Supportive housing
0	House
0	Apartment
0	Group home
0	Other (please describe)
0	Don't know

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11. Are you still living in the home that was modified?Yes (go to Question 13)No
If NO, in what year did <i>you</i> move from the house that was modified?
12. Would you please tell us why you moved?
13. How many adults live in your household?
14. Do you receive any regular help with housekeeping from a company or agency?Yes
O No
O Don't know
15. Do you receive any regular help with personal care (washing, hygiene, dressing, and so on) from a company or agency?
O Yes
O No
O Don't know
16. Do you receive any regular help with transportation from a company or agency?
O Yes
O No
O Don't know
17. Do you have any further comments?

Thank you for taking the time to answer this survey. Your answers will help us improve the Home and Vehicle Modification Program for people like yourself.

Home and Vehicle Modification Program Designate Survey

On [Date Approved], [Consumer Name] received funding for the following modifications to their home: [Mod Apprvd1-10]. These modifications were completed on [Date Completed].

1.	When you requested funding from the Home and Vehicle Modification Program on their behalf, you said that the modification(s) would [ImprovementinAccessibilityMobility]. Have the modifications had the effects you expected them to have?			
	O Completely			
	O For the most part			
	O Partially			
	O Not at all			
	O Can't say			
2.	Have the modifications allowed them to do anything they couldn't do before you made them?			
	O Yes			
	O No (go to Question 3)			
	O Don't know (go to Question 3)			
	IF YES, what could they do after that they couldn't do before?			
3.	Have the modifications had any <i>benefits</i> for them that you hadn't expected them to have? O Yes O No (go to Question 4) O Don't know (go to Question 4)			
	IF YES, what unexpected benefits did the modifications have?			
4.	Have the modifications had any disadvantages that you hadn't expected them to have?			
	O Yes			
	O No (go to Question 5)			
	O Don't know (go to Question 5)			
	IF YES, what unexpected disadvantages did the modifications have?			

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5.	What have they liked the MOST about these modifications?	
6.	What have they liked the LEAST about these modifications?	
7.	What advice would you give people who are planning similar modifications?	
8.	How satisfied have they been with these modifications on the whole?	
	O Very unsatisfied	
	O Somewhat unsatisfied	
	O Neither satisfied nor unsatisfied	
	O Somewhat satisfied	
	O Very satisfied	
9.	Did they have any other modifications made to the same house at a later date?	
	O Yes	
	O No (go to Question 10)	
	O Don't know (go to Question 10)	
	If YES, what other modifications were made to the house?	
us qu	ally, we would like to ask some questions about [consumer name]. Your answers to a great deal in evaluating the success of the Home and Vehicle Modification Pestions you may not be able to answer. Of course, if you don't want to answer an However, we would greatly appreciate any information you can give us.	Program. Some of these
10.	In what type of accommodation are they currently living?	
	O Supportive housing	
	O House	
	O Apartment	
	O Group home	
	O Other (please describe)	
	O Don't know	

•••

11.	Are they still living in the home that was modified?
	O Yes (go to Question 13)
	O No
	If NO, in what year did <i>they</i> move from the house that was modified?
12.	Would you please tell us why they moved?
13.	How many adults live in their household?
14.	Do they receive any regular help with housekeeping from a company or agency?
	O Yes
	O No
	O Don't know
15.	Do they receive any regular help with personal care (washing, hygiene, dressing, and so on) from a company or agency?
	O Yes
	O No
	O Don't know
16.	Do they receive any regular help with transportation from a company or agency?
	O Yes
	O No
	O Don't know
17.	Do you have any further comments?
10	Mould you place let us know what your relationship is with [consumer name].
10.	Would you please let us know what your relationship is with [consumer name]: O Husband/wife
	O Other family member
	O Designated representative O Other (please specify)
	U Utilei ibieuse Sbetiivi

Thank you for taking the time to answer this survey. Your answers will help us improve the Home and Vehicle Modification Program for persons like [consumer name].