Report: Economic Effects of Utilising Lifemark at a National Level

Prepared by the Ministry of Social Development on behalf of Lifemark Ltd

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Executive summary

Background

The Lifemark trademark brings together consumers and businesses with products and services that meet the needs of our changing population.

Lifemark is a single, integrated quality assurance scheme which leads social change in the way products and services are developed, and ensuring that the needs of consumers are met as they change over time. The Lifemark has emerged out of the consumer drive to prepare for an ageing population. It is an example of social entrepreneurship creating change without imposing legislation.

With housing, for example, this means that houses are built with key design features enabling affordable and simple adaptation for the natural changes associated with ageing including reduced physical strength, disability or the arrival of grandchildren. With an ageing population there is a great economic benefit from such an initiative. The commercialisation of this work in housing has begun through the wholly owned CCS Disability Action subsidiary, Lifemark Ltd.

Lifemark is for everybody

Four inter-related issues are combining to create a never-before seen dynamic in New Zealand:

- A rapidly ageing population[1]. By 2061:
    - life expectancy at birth will have increased by about 6 years
    - the 65+ age group is predicted to be 27% of the population
- The inclusion of disabled people in family and community life :
    - Currently around 45% of older people have a disability
    - Estimate are that between 45-50% of disabled adults live in homes that are not modified for their needs
    - Disability rates increase with age and, in the future, we will have more people living with sensory impairments and mobility issues. There will be an ever-increasing need for housing that is inclusive, adaptable and accessible
- Increased awareness in regard to people's health and safety at home:

[1] "The dynamics of housing demand of over 65 year olds 2010-2050: a summary of trends affecting older people and older people's housing futures". Authors: Kay Saville-Smith, Julie Warren and Lorraine Leonard – CRESA, Bev James – Public Policy and Research, Andrew Coleman, MOTU.

  - 260,000 injuries occurred in the home this year [2]
    - 25,000 of which required hospitalisation
    - 500 resulted in death (nearly twice the national road toll over the same period)

- Families of diverse cultures and families of three or more generations, living together under the same roof

Design of the New Zealand housing stock does not yet take into account this dramatic shift in demographics. The challenge of designing inclusively for the whole population is not just a matter of social urgency – it has become one of the defining business and social priorities of the century.

In the housing industry, homes that carry the Lifemark brand, have been designed to the five key principles of *Lifetime Design* and have achieved the *LifeStandards*. The *LifeStandards* are now being adopted by designers, architects, developers and builders to enhance the lifestyle of all occupants, regardless of age, mobility or dexterity. The *LifeStandards* promote the features and benefits of:

  - Usability
  - Inclusion
  - Adaptability
  - Accessibility
  - Lifetime Value

What has Lifemark achieved to date?

  - $50 million of Lifemark development underway
  - 55 Lifemark approved housing designs
  - 276 Lifemark approved homes under construction

Whilst Ministers broadly endorse the use of Lifemark by Government, they have asked Lifemark's principals to demonstrate the economics, so that Government can support Lifemark on an economic basis as well as for its social good.

In February 2009 Peter Hughes, CEO Ministry of Social Development, offered his leadership within Government to facilitate the preparation of this report to quantify the cost benefit to the New Zealand Government of utilising the Lifemark.

[2] ACC – Safety Begins At Home – http://www.homesafety.co.nz/didyouknowpresentation

For the purposes of this report, it was decided to use disability as a sector example because of the availability of data and statistics in that area. The value case method used was:

- calculate marginal costs of Lifemark approval
- compare marginal cost to
    - cost to adapt existing buildings
    - cost of moving
    - relative costs of in-house services and connectivity

The Ministry of Social Development has prepared this economic analysis of Lifemark, which shows potential savings to the economy of $20-$40m in the disability housing sector alone. Whilst this saving is significant in isolation, the wider economic savings and social benefits of Lifemark must also be taken into consideration whilst reading this report.

Working together

Utilisation of the consumer-driven trademark certification, Lifemark, through a collaboration of:

- Government – providing leadership and influencing New Zealanders to make informed quality consumer choices
- Business – providing leadership, at the same time adding value to business with this unique selling proposition
- Community organisations – fulfilling their objective of creating more accessible, usable products and services
- The public – playing an important role to play in creating social change through social innovation

Government support being sought by Lifemark

We need confirmed political leadership from Government departments to champion the importance of consumer products and services that have a Lifemark.

Explicit support and leadership from Ministers for this social entrepreneurial initiative through:

- Supporting us to work with related Ministers so that there is cross-Government support to build a forward-looking partnership - including five year Government funding for this consumer movement

- Working with Lifemark to identify possibilities for other policy/supplier/contracting leverage points to incentivise or direct the market toward Lifemark
- Lifemark Ltd being part of the Government's 'good news story'

Introduction

1. Lifetime Design developed Lifemark as a set of standards for residential housing incorporating the principles of usability, accessibility, inclusion, adaptability and lifetime value in mind. Lifemark is a trademarked certification that can be awarded to dwellings that meet the relevant standards.

2. The Lifemark standard for dwellings is set out in Appendix 1, and can be seen as a direct response to the policy issues raised in a recent study of housing and disability (CHRANZ, 2007).

3. Compared to conventional housing, building to the Lifemark standard may incur some initial additional expense, although the extent of this appears small and could be reduced further. The cost is lower as a percentage cost for larger buildings.

4. The economic benefit addressed in this report is the potential saving in the cost of retrofitting for disability, should the need arise, by building to the Lifemark standard. Studies from the UK and elsewhere make it clear that retrofitting is considerably more expensive than future proofing at the point of building.

5. The benefits of building to the Lifemark standard will accrue to both individual homeowners and to the national economy. In respect of homeowners, the authors of a recent Australian report on in-home care (AHURI, 2008) record:

   > *We have shown that there is a nexus between housing and the cost of in-home care. Home ownership affects the potential to modify existing dwellings and the potential for elders to remain in the community. Dwelling condition and type may impose functional limitations that increase care costs or make in-home care difficult, if not impossible. Key policy themes that are directly associated with our cost-benefit findings are the economic value of housing, growing demand for home-based care, and the appropriateness of housing design. Further, housing is one of the key factors affecting older people's chances of early entry to more costly residential care services.*

6. Of course, not all people will have an impairment to the extent that their housing requires any modification, regardless of its original standard. Some people who have an impairment may only require minor modifications to their dwelling. Nonetheless, demand for disability-friendly housing looks to rise significantly over the next thirty years as the population ages, and (although not discussed here) there is evidence that such housing confers wider benefits in terms of health and well-being.

7. If modifications are required, the expense may fall directly on the homeowner [3]; it may also fall on ACC, if the disability is a result of an accident, and on the Ministry of Health, where people have insufficient assets to afford modification themselves.

8. There is also clear and increasing pressure on providers of existing social housing for increased retrofitting. Private renters do not generally have tenure, and in any case may find property owners unwilling to get modifications made.

9. Therefore, this analysis considers the impact both from the viewpoint of individuals as well in respect of the national economy. In order to do this I first consider what can be deduced from statistics on the prevalence of disability in New Zealand, and then project housing need. I discuss the possible range of retrofitting costs. For individual effects, I develop probabilistic factors for assessing the value of building to the standard for an individual. For the economy as a whole, I look at the burden retrofitting places on the economy under three scenarios in respect of Lifemark take-up.

10. This report does not monetise additional factors such as assuring oneself of being able to age in place, and being in a living environment that should enhance one's lifetime health and well-being. These are nonetheless real benefits, and in considering the potential benefit of utilising Lifemark, must be kept in mind.

[3] Note that a homeowner who sells an unmodified house or flat and buys one appropriate for disabled living will generally be paying for the cost of the modifications that have been made, as well as incurring significant costs in terms of moving.

Disability prevalence

Definition

11. For the purposes of this report, disability means 'moderate to severe disability'. Severity of disability is a measure of the intensity and extent of the disability of the respondent to the Statistics New Zealand disability survey. Respondents were assigned a rating of either 'mild', 'moderate' or 'severe' based on their need for assistance and/or special equipment relating to their disability. People with 'moderate' disabilities use, or have an unmet need for, some type of assistive device, aid or equipment. Those with 'severe' disabilities receive daily assistance with tasks such as bathing, preparing meals, etc. Although this level of impairment will not necessarily always require modification of one's dwelling, there is a good likelihood that this will in fact be the case.

Current

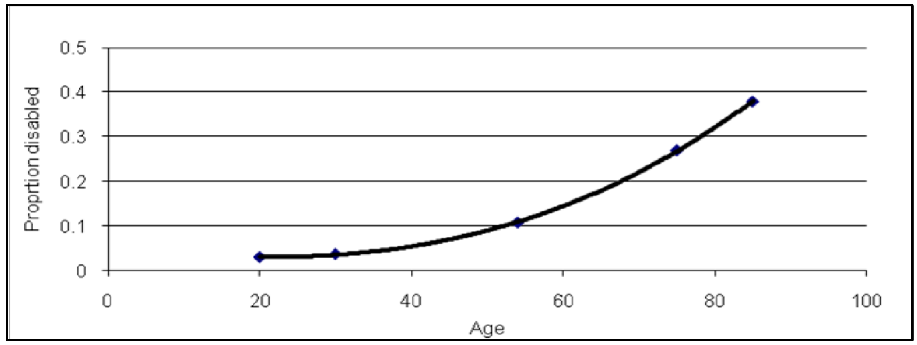
12. The 2006 prevalence statistics provided by the Statistics New Zealand's most recent survey (Statistics New Zealand, 2006)) give rates for adults for three age groups only. This restriction is understood to be due to the small sample size of this survey. The 2001 survey provided rates by severity of disability; this classification is not available in published 2006 data, and hence the proportions from the 2001 survey have been applied to the 2006 data to give the rates shown below.

Table 1: disability prevalence rates, 2006

Age range	Rate
15 - 44	3.7%
45 - 64	10.8%
65+	27.0%

13. Population projections show a structural change in the age distribution, and hence age-specific rates are needed to project the future prevalence of disability. The age-specific rates I have derived from the prevalence rates in Table 1 are a little speculative, but do not appear unreasonable when compared to results from other work, for example the Rickayzen-Walsh model (Rickayzen and Walsh, 2002). Figure 1 below shows the derived rates by age.

Figure 1: Derived age-specific moderate and severe rates of disability, 2006



Population projections

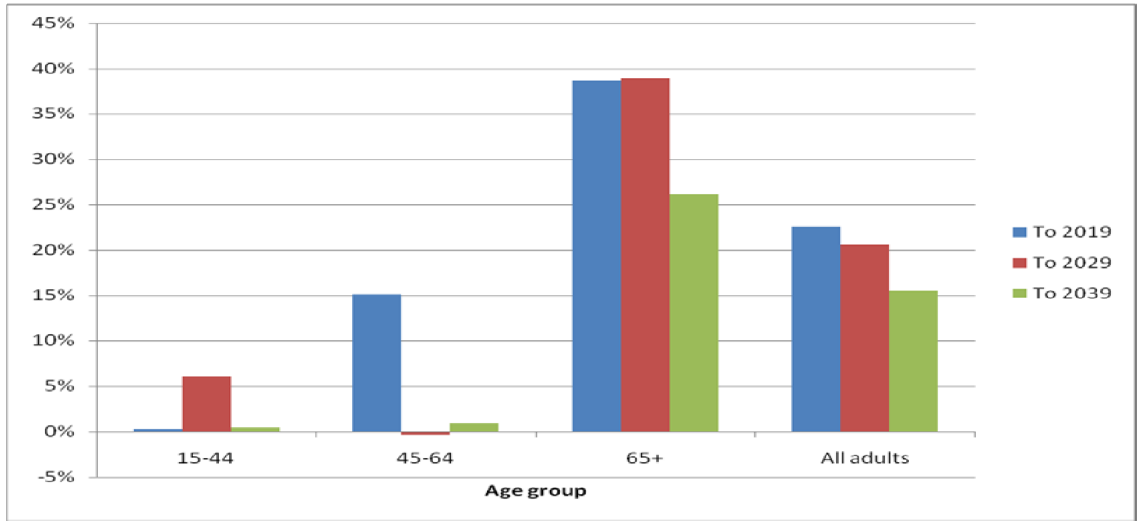
14. Statistics New Zealand produces population projections based on the 2005-2007 Census utilising variant rates of assumed future mortality, fertility, and migration (Statistics New Zealand, 2007). Using series 5, the central projection, and applying the age-specific rates derived above assuming no change over time, gives the following projection of numbers of moderately to severely disabled adults.

Table 2: Projected disabled in population

Age group	2009	2019	2029	2039
15-44	67,100	67,300	71,400	71,700
45-64	113,200	130,300	129,800	131,000
65+	146,300	202,800	281,800	355,400
Total	326,600	400,400	483,000	558,100

15. This suggests the number of disabled will remain relatively constant at the younger ages, but that there will be a significant increase in the 65+ population. Figure 2 illustrates the projected increase by age group in each ten-year period.

Figure 2: Increase in disability prevalence over 10 year periods



16. The increase for the oldest group averages about 30% for each 10-year period, giving an average increase over the whole adult population of around 20% over ten years.

Housing stock

Current

17. The 2006 Census reports some 1,260,000 dwellings in New Zealand, of which 910,000 are inhabited by their owners, 290,000 are privately rented, and 600,000 are social housing[4].

18. The first column in Table 3 below shows the total number of occupied dwellings (owned, privately rented, social housing) by age groups from age 20 onwards, taken from the 2006 Census. Next is the proportion of those age groups disabled, derived from age-specific prevalence rates. The final column shows the derived number of houses required to house moderately and severely disabled adults, assuming strict proportionality.

Table 3: Number of modified dwellings required by reference to disability prevalence, 2006

Age range	Total dwellings	Disability prevalence	Dwellings needed
20-24	56,700	0.02975	1,687
25-29	83,403	0.03263	2,721
30-34	118,539	0.03808	4514
35-39	140,127	0.04622	6,477
40-44	150,846	0.05811	8,766
45-49	141,846	0.07357	10435
50-54	122,883	0.09382	11,529
55-59	114,057	0.11944	13,623
60-64	86,946	0.14991	13,034
65+	239,931	0.26429	63,412
Total	1,255,278		136,197

19. No accurate data is available as to how much of this housing has actually been adapted for people with moderate to severe disability, but a recent estimate (CHRANZ, 2005) is that somewhere between 52-97,000 dwellings are modified. It is also suggested perhaps 40-50% of moderately to severely disabled adults live in unmodified homes, and will be receiving subsidised care. These estimates are not inconsistent with the indication in Table 3 of an overall requirement for 136,000 modified dwellings.

20. Taking a midpoint figure of say 75,000 modified dwellings available, suggests the shortfall currently is about 61,000 dwellings, about 45% of the 136,000 total.

[4] The Census also reports in excess of 100,000 unoccupied dwellings. For the purposes of this report, these are ignored.

Projected housing need

21. Using the same approach of direct proportionality, one can project the number of modified dwellings needed for the years 2009, 2019, 2029 and 2039 as set out in Table 4.

Table 4: Projected number of modified dwellings required by reference to disability prevalence

Age group	2009	2019	2029	2039
20-24	1,720	1,768	1,843	1,812
25-29	2,893	3,288	3,064	3,247
30-34	4,250	4,792	4,927	5,132
35-39	6,407	6,223	7,006	6,568
40-44	8,520	7,710	8,647	8,884
45-49	11,073	10,718	10,437	11,728
50-54	12,446	13,483	12,240	13,748
55-59	13,875	17,528	17,034	16,636
60-64	15,429	19,017	20,738	18,911
65+	68,456	95,120	129,256	155,075
Total	145,071	179,647	215,192	241,742

22. The future increase in dwellings actually adapted for disability will depend on the extent to which existing dwellings are modified, and the extent to which new dwellings are built on lifetime design principles as exemplified by Lifemark.

23. New housing has been running at 25-30,000 dwellings a year in the past 10 years or so, although in the 12 months to May 2009 the number fell to 15,000, reflecting the effect of the recession. For the purposes of this report, net new stock of 25,000 per annum is anticipated, allowing for demolition and/or replacement of existing stock. While there is an argument that the past levels may reflect a "boom" in construction that will not necessarily be a feature of the future, there is also the effect to consider of greater numbers of people choosing to live alone with fewer in family groupings.

Costs

Building to the Lifemark standard

24. UK studies suggest building to the Lifemark standard adds about 0.5-1% to the cost of a conventional house; the lower percentage applies to the higher value house, and vice versa. Utilising building costs published by the New Zealand Department of Building and Housing (DBH, 2009) suggests that the average upfront cost at the present time might be something of the order of $2,000 to adjust an existing non-compliant design.

25. However, this figure has been challenged by a reviewer of an initial draft of this report, suggesting that were building to the standard to become more prevalent, architects and builders would make an initial investment in adaptation and then no further cost would be incurred (other than amortisation of the initial investment). This seems a plausible argument, but in the current environment I propose to work from the $2,000 figure, acknowledging that this may be an overstatement should utilisation of the standard becomes widespread.

Retrofitting

26. Retrofitting will incur a range of costs, since the extent of adaptation can vary. Anything that requires structural alterations will be expensive, such as bathroom improvements, widening doors and passages, putting in a non-obtrusive level entry, and so forth. Other changes, such as changing to lever door and window catches, ensuring floor coverings are slip resistant, and so on, are likely to be more modest. Wiring changes for better access to power points and phone jacks may be in between.

27. Research into retrofitting costs does in fact indicate a bimodal distribution. Ideally, with appropriate data, one would split disability prevalence into the two modification need categories the bimodal distribution suggests. However, I believe in the present circumstances, with non-tractable data, use of a single overall average figure is not inappropriate.

28. For this exercise, I am assuming an average adaptation cost of $35,000 to bring a conventional New Zealand home up to the Lifemark standard. A survey of 121 disabled people carried out as part of the research for a report on housing and disability (CHRANZ, 2007) found an average cost of $30,158 provided by way of assistance for housing modification. The average additional cost met by the respondents themselves was a further $13,353. The CHRANZ report states :

> *While the data should be treated as indicative, it should be noted that the findings are consistent with data arising from the focus groups undertaken in the course of this research and, indeed, with other research both here and*

overseas related to the performance of the New Zealand housing stock and the experience of disabled people in housing markets.

29. Intuitively this $35,000 figure does not appear unreasonable, as anybody who has had even minor alterations made to their house for any purpose will attest. Indeed, if anything, it will be on the conservative side.

Other costs

30. The approach taken here contrasts the initial investment to build to the Lifemark standard with the cost of subsequent retrofitting if needed. In some cases, retrofitting will not be carried out for lack of funds or other reasons, but in its absence, other costs may be incurred. For example, absence of a "walk-in" shower facility will almost certainly require home help on a daily basis, perhaps an extra $5,000 per year.

31. In the case that a person moves out of their dwelling because it is unsuitable but retrofitting appears unaffordable, then moving costs may come to something of the order of $20,000. There is also the effect on social connectedness. Moving to a residential home and qualifying for the residential care subsidy clearly will incur an additional cost to Government – every year that a person is able to stay out of residential care saves in excess of $25,000.

Economic effect on the individual

32. If for an individual the upfront cost of building a new house to the Lifemark standard is of the order of $2,000, the payoff is the saving in adaptation costs in the event of impairment occurring. If the adaptation cost is X(t) at some future time t and the probability of a person now aged α living to time t and then becoming disabled is d(α,t), then the present value is ∑X(t) x d(α,t) x r(t), where summing is over the relevant values of t for the individual's age, and r(t) is a time use of money discount factor.

33. Adaptation costs will increase over time, and X(t) can be replaced by X(0) x b(t), where X(0) is the current cost and b(t) is the increase in building costs to time t.

34. I have constructed values for d(α,t), using population mortality and age specific disability prevalence rates, allowing for the mortality of disabled people being a little higher than the general population. These probability values appear plausible, and are appropriate here for illustrative purposes. The probabilities are truncated at age 85, in recognition that with increasing disability by age, people may prefer to enter residential care rather than adapt their house.

35. For the time use of money discount rate, I have assumed 5% pa net of tax and expenses. This is a long-term net of tax rate that may reasonably be assumed to be earned on an investment of $2,000.

36. For the increase in building costs, I have considered several possibilities. Statistics New Zealand producer price costs for construction over the last few years suggest a rate 5% pa would be reasonable; however, these results may reflect high demand pressures for housing which will not necessarily re-occur to the same extent. The same consideration applies to figures taken from the Department of Building and Housing website (DBH, 2009). Analysis in a report on housing costs March 2001 to March 2007 (DPMC, 2008) shows annual increases of 11 and 7% pa in labour and material costs respectively for a 145 sq metre house.

37. An alternative approach is to assume future growth in cost will match expected growth in national wage levels, plus a small margin. Treasury take as their long-term expectation 3.5% pa, and hence an increase in building costs of 4% pa would be a not unreasonable assumption.

38. For this exercise, therefore I take as my central assumption 4% pa. Results using 3% pa and 5% pa are also given by way of sensitivity analysis.

39. Table 5 below shows the present value to the new homebuilder of a cost of $35,000 for subsequently adapting a conventional dwelling (i.e. not built to the Lifemark standard) in the event of moderate or severe subsequent disability.

This takes into account the probability that such an event will occur, conditional on survival, using the approach described above.

Table 5: Present value of $35,000 in event of disability, by age at which dwelling constructed

Current age	Building cost, increase rate 4% pa
20	$7,612
25	$7,688
30	$7,768
35	$7,849
40	$7,926
45	$7,998
50	$8,063
55	$8,121
60	$8,170
65	$8,214

40. This model indicates that an initial outlay of about $2,000 by building to the Lifemark standard has a over a threefold return if adaptation costs average out at around $35,000, assuming building prices increase at 4% pa. Put another way, the implied rate of return on the outlay varies from 6.5% to 8.0% in excess of assumed CPI inflation.

41. Table 6 shows the results assuming an increase in building costs of 3% pa and 5% pa. The assumed rate of increase in building cost has some effect, but makes no significant difference to the conclusion. The implicit rates of return in excess of CPI are 5.5 to 7%, and 8 to 9.5% respectively

Table 6: Present value of $35,000 in event of disability, by age at which dwelling constructed: sensitivity test

Current age	Building cost, increase rate 3% pa	Building cost, increase rate 5% pa
20	$5,084	$11,610
25	$5,183	$11,616
30	$5,288	$11,625
35	$5,395	$11,633
40	$5,500	$11,639
45	$5,600	$11,638
50	$5,693	$11,631
55	$5,780	$11,617
60	$5,859	$11,594
65	$5,933	$11,567

42. As noted earlier, in some cases adaptation costs may be minor – although one cannot know in advance – and the extent to which $35,000 is a reasonable estimate of the average cost might be queried. Table 7 accordingly recasts the figures in Table 5 to show what average cost of adaptation would equate to an initial outlay of $2,000.

Table 7: Adaptation cost to give equal value for outlay of $2,000

Current age	Building cost, increase rate 4% pa
20	$9,196
25	$9,105
30	$9,011
35	$8,919
40	$8,831
45	$8,752
50	$8,681
55	$8,620
60	$8,568
65	$8,522

43. On the assumption that retrofitting costs will increase on average about 4% pa, the model suggests that if average adaptation costs are likely to exceed $9,000, then the Lifemark investment at the least pays its own way.

44. While this presents a sound economic argument for building to the Lifemark standard, many people may still need to be encouraged to do so as the result of inertia, lack of understanding that impairment could happen to them, and other forms of myopia familiar in financial decisions. There is a significant literature in behavioural economics setting out the importance of these factors.

45. It follows that some form of Government intervention may be helpful to improve outcomes rather than leaving matters completely to market forces, particularly when decisions with long-term consequences need to be made. For example, take the case of savings for retirement: the Government puts significant resource into the Retirement Commission in order that people are fully informed about what they need to do, so that informed choices can be made.[5] The auto-enrolment feature of KiwiSaver is another example of a policy response to this issue of myopic behaviour.

46. It is not the purpose of this report to suggest what form intervention might take. It does however strongly suggest that intervention to encourage take-up of the Lifemark standard will be worthwhile at the individual level.

[5] The Retirement Commissioner's "Sorted" initiative (www.sorted.org.nz) is a good example of the population being encouraged to think about longer term issues and make informed choices.

Economic effects at the national level

Introduction

47. This section considers the impact on the New Zealand economy of the need to retrofit conventional houses when an adult becomes moderately or severely impaired, and provides estimates of the national savings that might be made, conditional on assumed levels of take-up of the Lifemark standard. These estimates are then compared with significant housing modification costs being incurred in the public sector by two Government agencies.

Projection of national savings by adoption of Lifemark

48. To illustrate what is at stake, assume different levels of Lifemark take-up for new dwellings; 5%, 33%, 67% say. What would be the economic impact?

49. In Table 4 above, the projected need for dwellings adapted for moderate and severe impairment was projected. In Table 8 below, the total housing demand projection is repeated, and then the extent to which this may be achieved is shown according to the different scenarios of take-up of Lifemark at rates of 5%, 33%, and 67% respectively over the period.

50. For the purpose of these projections, it is assumed retrofitting continues at 55% of demand, and that net new building continues at the rate of 25,000 dwellings a year.

Table 8: Projected demand and supply according to take-up of Lifemark

	Year	**2009**	**2019**	**2029**	**2039**
Projected **demand**		145,071	179,647	215,192	241,742
Supply on take-up of Lifemark at given rate	5%	79,789	98,806	118,356	132,958
	33%	79,789	181,306	283,356	380,458
	67%	79,789	348,806	618,356	882,958

51. With minimal take-up of Lifemark of 5% of new dwellings, then even with retrofitting continuing at 55% of demand, there will be a significant shortfall.

52. Assuming Lifemark take-up of 33% gives rise to an apparent excess of supply, but it needs to be kept in mind that those not actually disabled at that point in time will occupy many Lifemark houses. Accordingly, demand for retrofitting is likely to continue, albeit at a reduced rate over time.

53. At the higher 67% take-up the projection suggests that there will be nearly four times as many dwellings fit for the moderately and severely disabled in 30 years time than actually needed for occupation by that group, indicating that retrofitting may cease to play much of a role by then.

54. In terms of potential saving to the economy, I have considered the more likely demand for retrofitting under the three scenarios of Lifemark take-up given above, rather than assuming 55%.

    - For the 5% take-up, I have assumed the extent of retrofitting will rise from the current 55% and average 75% over the period. The increase in demand is going to occur at older ages, as Table 2 demonstrates, and the pressure for ageing in place is necessarily going to require a higher degree retrofitting.

    - For the 33% take-up, I assume the demand for retrofitting will drop to around 50% averaged over the 30-year period. As noted, many Lifemark houses will be occupied by people without impairment who plan to future-proof themselves, and hence demand for retrofitting will continue, albeit reduced.

    - With 67% take-up of Lifemark, the projections in Table 8 suggest that an active market for future-proofed housing will develop, and retrofitting will be much less necessary. It is therefore assumed that demand for retrofitting will fall away gradually, averaging out at 25% over the 30 years.

55. In this exercise, I have not incorporated other benefits in such as the saving in moving costs, and the increase in social connectedness resulting from people with am impairment being able to visit non-disabled friends and family in their Lifemark-compliant disability- friendly homes.

56. Table 9 shows the results in terms of projected cost, based on the $35,000 per retrofit amount used in this report.

Table 9: Projected retrofitting costs according to take-up scenarios

Lifemark take-up level	Demand for retrofit	Period	10 years to 2019	10 years to 2029	10 years to 2039
5%	75 %	Number modified	25,932	26,659	19,912
		Annual cost	$91 m	$93 m	$70 m
33%	50%	Number modified	17,288	17,773	13,275
		Annual cost	$61 m	$62 m	$46 m
67%	25%	Number modified	8,644	8,886	6,637
		Annual cost	$30 m	$31 m	$23 m

57. The projected savings in retrofitting costs incurred are of the order of $25-30 million **annually** if Lifemark take-up reaches the 33% level. The projected savings increase to $55-60 million annually if take-up is 67%.

58. Offsetting these potential savings are the additional costs incurred by building to the Lifemark standard. Arguably, these could be ignored, because were Lifemark to become more adhered to, the additional costs would be minimal. In addition, the payoff from effectively insuring oneself against the need to modify one's dwelling by building to the Lifemark standard is delayed; expenditure in 2039, for example, may not realise savings for another 30 years or so.

59. At the most, a reasonable offset to the potential savings indicated above might be estimated as about half the additional $2,000 cost of building to the Lifemark standard. This for 33% and 67% of 25,000 new dwellings a year at the $2,000 average per dwelling rate is $8 million pa and $17 million pa respectively.

60. The conclusion then is that if a significant take-up of Lifemark occurs, at the 33% level, then there are potentially average savings to the economy of around $25-30 million less $8 million at most, say **$20 million** each year averaged over the 30-year period.

61. On a more optimistic view of what could be attained by way of take-up, the annual benefit is correspondingly **$40 million** a year. Based on the results from this modelling, one might want to contemplate making Lifemark compulsory, or at least introduce some equivalent of the KiwiSaver automatic enrolment – e.g. anyone not building to Lifemark would be required to apply for an exemption.

62. One should perhaps stress that these results are "what-if" figures, based on modelling work, and reliant on assumptions as described in the report. Even so, they do serve to illustrate that:

    - with the ageing of the population, and absent any other initiatives, retrofitting existing housing is going to be an ever increasing and necessary economic burden on the economy
    - a reasonable up-take of Lifemark standards has the potential to make a significant reduction in that burden.

Current expenditure by agencies

63. There is some data readily available as to the cost being borne by Government agencies. ACC reports a cost of $19.6 million in the 2008-09 year under the heading "Support for Independence – Capital" in respect of housing modification. Table 10 breaks this down further.

Table 10: ACC 2009 costs for housing modifications

Housing Modifications - Non Structural	$2,424,625
Housing Modifications - Structural	$17,110,063
Other	$112,614

64. ACC advise the median cost was relatively minor, at $1,188. However, the average was $11,078, suggesting some very significant bills. In addition, it is understood ACC does only the minimum necessary; for example, it will not pay for widening bedroom doorways other than for the person's own bedroom. A parent with an impairment may not be able to get into their child's room.

65. A reduction in the need for this level of expenditure would flow through in to lower ACC levies. (One might go further and argue the ACC should be offering a discount to anyone who lives in a Lifemark certified dwelling!)

66. The Ministry of Health paid out $13,952,000 for housing modifications in the 2008-2009 year. Unlike the ACC, the Ministry of Health is restricted by available funding, and applies income and asset testing, so actual need may be higher. Grants are only considered where, amongst other things, they are essential for the person to get around more safely in their home, remain in, or return to their home. It would seem likely that where a person was living in a Lifemark certified dwelling, much of this expense would not be incurred.

67. In the short term, encouraging the building of new houses to the Lifemark standard will not have a major effect on these costs; the need to retrofit will remain, since most able-bodied people are currently in conventional houses. There is currently little incentive for any able-bodied person to sell their conventional house and purchase one that has been modified, since the price is likely to reflect the full cost of modification and they may , in fact, not need it.

68. Longer term, however, the more Lifemark-certified dwellings built will act to reduce costs. As an example from the ACC figu res, if 10% of those disabled through accident injury were in future in a Lifemark house, that is a potential saving for ACC of $2 million a year. Potential savings for the Ministry of Health, allowing a wider reach for their appropriation, are equally cl ear.

69. More importantly, perhaps, the current level of expenditure on housing modification by these two agencies lends support to the results provided earlier as to the potential amount of savings that are possible with widespread adoption of the Lifemark standard.

Conclusion

The Lifemark, an independent quality assurance, has emerged from the necessity to prepare for an ageing population. It is leading social change in the way products and services are developed to ensure consumers' needs are met as their requirements alter over time. Lifemark is an example of Government, business and community working together to solve a social problem without regulation.

This is not just an issue of our ageing population. There are other demographic changes, too, such as disabled people living in family and community life, several generations of the same family living together and an increased awareness of safety at home. Design of the New Zealand housing stock does not yet take into account this dramatic shift in demographics and many millions of dollars are being spent each year in retrofitting existing homes.

This report was written to enable Government to measure the economic impact of utilising Lifemark, rather than continuing to incur the ongoing costs of retrofitting for an ageing population. For the sake of simplicity, housing in the disability sector has been used for the economic analysis in this case, although the benefits of Lifemark are far reaching across the entire community.

The qualitative benefits of utilising the Lifemark include:

- ease of living for young families
- ease of living for people with obesity
- reinforcement of the message of positive ageing, lifetime health and well-being
- adding perceived value to facilitate reselling of homes

These factors must also be considered as benefits to the economy. Utilisation of the Lifemark in housing would not only address these societal issues but also have a profound economic benefit to the country.

Lifemark is seeking cross-Government support for Lifemark in the form of a forward-looking partnership, including five years funding.

If 33% of new-build homes in New Zealand were to carry the Lifemark then, over a ten-year period, there is a potential saving of $25-$30 million per year to the economy. Take-up at the 67% level provides potential savings of $55-60 million per year. These savings arise simply from reducing retrofitting needs – other advantages are not included.

Retrofitting existing housing is going to be an ever increasing and necessary economic burden on the economy. The saving from Government chequebook in supporting Lifemark is clear.

This report recommends the official endorsement of Lifemark by Government in the form of funding, as well as partnerships around the housing stock of New Ze aland.

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Appendix 1: Requirements for Lifemark certification

Entrance

- At least one car parking space can be widened to 3.6m.
- Paths from the car parking space to the house are slip resistant, gentle sloping and at least 1200mm wide.
- A flat area immediately before the entry door of 1200mm x 1200 mm.
- The entry area is under cover and is slip resistant.
- Sensor light at the main entry.
- The threshold to a main entry has no step higher than 20mm.
- The entry hallway is 1200mm wide and other internal hallways are at least 1050mm wide.
- Doors have a minimum clear opening of 810mm.

Kitchen

- It is not designed as a main thoroughfare.
- It provides a 1500mm turning circle.
- Minimum distance between benches of 1200mm.
- Doors have a minimum clear opening of 810mm.
- Appliances are accessible and placed at least 300mm away from corners.
- Dining and cooking areas are located next to each other.

Livingroom

- Lever handles are used on all doors.
- Power sockets, TV, phone and computer outlets are located away from the corners and are sited between 600mm to 1000mm from the floor.
- Windows have lever handles and are mostly located no higher than 1200mm from the floor.
- Floor finishes are slip resistant and designed to accommodate wheeled traffic.

- Smoke alarm systems that enable present or future adaptation to audio and visual warnings.

Bedroom

- In larger houses (over 80m2), at least one bedroom is design with 800mm of clear floor space around the bed(s).
- Easy access to at least one bathroom from this bedroom.
- A bedroom located on the entry level of the home.
- Power sockets, TV, phone and computer outlets are located away from the corners and are sited between 600mm to 1000mm from the floor.
- Light switches and door handles are placed at a consistent height of 1000mm from the floor.

Bathroom

- A toilet and bathroom on the entry level, next to each other.
- The combined bathroom and toilet floor space can (either now or in the future) provide enough space for a 1500mm turning circle.
- Space and plumbing for an entry level shower (installed either now or in the future) with a minimum dimension of 1200mm x 1200mm.
- The walls are pre-strengthened to accommodate future handrails and a shower seat.

Multi-storey homes

- Space identified for a 1200mm x 1200mm platform lift to be installed in the future.
- Stairwells contain weight-bearing handrails on both sides.
- The width between handrails is a minimum of 900mm to allow for a future chair lift.
- A 1200mm x 1200mm unobstructed platform exists at the bottom of the stairs.
- The handrail will extend 300mm past the top step and 300mm plus one tread width from the base of the bottom step.