

COTA Over 50s Proposal

National Implementation of *Living Longer Living Stronger™* (LLLS)



A national strategy to create capacity in the health and fitness sectors to increase the number of seniors participating in sustainable models of progressive strength training.

This proposal seeks national funding for five years:

- to expand a well tested community based sustainable model of exercise for retired people,
- to establish the practice in to Return to Work initiatives
- and improve health and work capacities of seniors, while reducing dependence and the negative impact of chronic illness across the 50 – 90 year age groups and on health expenditure.

What does LLLS offer?

Designed as an industry change strategy LLLS has the potential to produce sustainable programs, in areas that impact on retired people and mature aged workers, including those returning to work from injury/stress. Many of these programs will not require on-going public subsidy for the continued operation, or will save funds in other program budgets.

In addition, the design of LLLS maximises the conditions for social engagement of participants both to foster retention with the training program and to minimise the social isolation frequently experienced by those seniors with poor health.

However, LLLS lacks adequate resources to enable national promotion, evaluation and a coordinated approach to quality control and development of training activities for providers. Such funding will enable it to its potential benefits..

This proposal seeks five year funding to enable this successful model to be implemented nationally in health, aged care, community and fitness settings.

Living Longer Living Stronger™ (LLLS) is an evidenced based program that encourages and supports change in the health and fitness sectors to achieve outcomes of improved health, quality of life and fitness. The program design maximises opportunities for people to engage in affordable, high quality results oriented strength training programs over the long term.

The concept has been developed and tested in Victoria where there are now over 125 providers working in collaboration with Council on the Ageing Victoria, providing individualised training programs to over 6000 people with a retention rate of 85% over 12 months. Local initiatives have commenced in Western Australia, South Australia and New South Wales.

The objectives of National Implementation of LLLS are:

- To develop the program to a scale that will have significant outcomes on broad health budgets, reduce premature workforce departure due to sarcopenia, and increase physical capacity, and among others reduce demands on HACCC services.
- To reduce the levels of morbidity in older people through the creation of affordable, sustainable opportunities for retired and unemployed older people to participate in strength training within their local communities.
- Increased mental and physical health outcomes for older people, especially those with chronic health diseases, such as diabetes, hypertension, obesity and poor day-to-day functioning. A program has been funded in the diabetes area run by the International Diabetes Foundation; this initiative will provide a sustainable base for this initiative and provide transition locations for people to be sustained in.
- The creation of networks between the sector health sector (GPs, community health aged care and allied health) and the fitness sector to provide multiple pathways to appropriate strength training for the range of participants.
- Increased social and community engagement by older people participating.
- Increased job opportunities in the fitness sector especially for mature aged instructors who can act as role models amongst their age peers.
- An increase in the knowledge and skill of the health and aged care sector of the contribution appropriate strength training can make to people with a wide range of health issues and fitness states.
- Development of innovative strategies to encourage and support groups with specific health or social needs e.g. the “old old” (over 80 years of age), indigenous people, aged care and community care recipients and people of non-English speaking background.

Potential Benefits of National Implementation of LLLS

- Reduce the cost of health care for older Australians.
- Increase in quality of life, physical health and mental health of participants.
- Increased capacity for activities of daily living amongst participants including those receiving community services and those in residential aged care facilities.
- Decrease in the growth of demand for community/aged care services required to support people who are “frail aged”.
- Decrease in the prevalence or severity of a range of health conditions including obesity, hypertension, diabetes, osteoporosis, depression (refer to research base attached).

BUDGET FOR NATIONAL IMPLEMENTATION OF LLLS

Participants currently pay their own fees that providers agree to keep at minimal levels as a condition of their participation in the program.

ANNUAL BUDGET

National Manager 1 EFT	\$120,000
Trainer 1.0	\$ 80,000
Clerical Assistance 1.0	\$ 50,000
8 S/T Project workers	
5 x 1.0 + 3 x 0.5 & oncosts	\$526,500
Interstate travel/accommodation	\$ 80,000
Media & Promotion in State & National	\$850,000
Management/admin/operating costs	\$180,000
Evaluation	\$150,000
Total	\$2,036,500

BUDGET FOR FIVE YEARS

\$10,182,500

Background

Living Longer Living Stronger™ aims to increase the strength of older people and their overall health management, thru increasing their muscle mass. This also increases their capacity to remain independent and manage their day-to-day activities.

Created in 1999, LLLS has achieved a shift in thinking about the "normal" state of ageing, from one of decrepitude to potential regaining of capacity, by challenging the concept of ageing being all “down hill” from forty. Many people now understand that physical activity is essential as we age to maintain health, strength, functional capacity and independence.

The initial stage of LLLS undertook a survey of 500 older people to understand what deterred them from undertaking exercise and particularly strength training, as well as what kept them going. From this LLLS was born. It seeks to create safe, effective and accessible progressive resistance programs.

The program exists as a part of a partnership which provides information and training to instructors, advice on ways to attract older people into their programs, provides media opportunities, assists in linking different parts of the health, aged, community and fitness sectors, to network and share information. Many older people are doing exercises at home, but it is much more effective, safer and more sustainable if people do it under instruction, with a greater range of equipment and in a supportive environment with people of similar age and interests.

The Participants

This program has increased the number of quality programs available to older people across Victoria and Tasmania. There are now over 125 sites in partnership with COTA providing quality individual programs in Victoria, with over 6000 people 50+ years, attending two to three times per week, with a retention of 85% over 12 months. Tasmania commenced in September 2002, and has secured 15 partners and has 500 older people participating. Local initiatives have commenced in Western Australia, NSW and South Australia but lack of recurrent funding threatens their viability.

The programs reach the full range from active seniors to those with sedentary lifestyles to frail people with a range of health conditions. The settings include fitness and health centres, neighbourhood houses, hostels and nursing homes, all with a variety of out-reach programs to the more isolated areas.

The Benefits of Progressive Strength Training

The LLLS program is evidence based, with research in Australia and from overseas showing progressive resistance strength training to be significant in reducing the incidence and impact of insulin resistance and diabetes, obesity, clinical depression, chronic heart failure, arthritis, and osteoporosis.

Muscle is an important part of the body's metabolism. It's progressive loss during the second half of life is common but by no means inevitable or irreversible. We also know that as we age and if we are inactive, our bodies will lose 5% muscle mass per decade after 45. This is more significant for women who have 10% less than men in the first place and are living longer in general.

We know from research that no matter what age you begin strength training, benefits can be gained. This is true for all ages, including those people in their late 90's. There is research to suggest that two thirds of what we interpret as ageing is in fact as a result of inactivity.

Progressive strength training will result in a lessening of demand on the health, Home and Community care and residential care settings if significant numbers of older people were more physically active and stronger. The result of lost muscle mass is multiple; it leads to decreased capacity to undertake daily living activities, decreased capacity to maintain balance to walk/stand, as well as difficulties in managing health and chronic disease issues as mentioned above.

LLS is a change strategy to develop the infrastructure at a local level, in partnership with the health, fitness and community sectors, to develop quality affordable strength training programs at a local level for people over fifty years. The strategy will also affect the community's attitude to changing away from the inevitable down hill decrepitude model to one of possibilities and one which embraces health promotion and physical activity. To achieve these outcomes the strategy would need to be in place for five years, be operated out of the eight state and territory COTA offices and coordinated by COTA Victoria where significant intellectual capital and emerging practice have demonstrated the capacity of this model to deliver the desired outcomes.

Living Longer Living Stronger is evidence based

Current Research

Strength training for older people is well evidenced through significant research projects both here and overseas. Most of the research is done over a 12 to 16 week trial period. The information collected through LLLS in Victoria suggest that the outcomes through this research is just the beginning of what is possible in a long term ongoing community based programme.

1. Dr Miriam Nelson, author of “Strong Women” series, particular focus on benefits of strength training on bones and osteoporosis. “Strong women, Strong Bones” published 2001.
2. Steve Selig et al, at Austin & Repatriation Hospital, looked at the benefits of strength training for patients with heart failure. Endurance and blood flow were all improved, as was aerobic capacity and heart rate control [2003].
3. Dr Michael Dorevitch, Senior Geriatrician at Austin Hospital. Research into “preventing functional decline on the hospitalised elderly”, by changing the day program of older people in acute wards. Included in this was physical activity which incorporated strength training. Some of the key outcomes were: increase of 15% people went directly home with a corresponding decrease of people going into further rehab or other care, and a decrease in average length of stay in hospital from 10 days to 8.3 days, with a corresponding of anticipated \$3 million bed days [2003].
4. Dr Maria Fiatarone. Research into impact of strength training on people over the age of 90 years living in residential care, where people increased their muscle strength and functional mobility. [Dec. 1994]
5. Dr Nalin Singh, Royal Prince Alfred Hospital NSW, undertook research into strength training for older people with clinical depression. Progressive resistance strength training was an effective, safe and feasible antidepressant.
6. Dr David Dunstan of International Diabetes Institute undertook research with people over fifty who have type two diabetes. It was found that with a restricted diet and strength training their diabetes was most effectively managed, and their blood glucose levels improved dramatically. [2002]