

## DR NEWSLETTER | EXERCISE PHYSIOLOGY & THE HEALTH SYSTEM BENEFITS

### ACCREDITED EXERCISE PHYSIOLOGY WHAT ARE THE HEALTH SYSTEM BENEFITS?

#### DIABETES

Exercise interventions delivered by accredited exercise physiologists are estimated to reduce the incidence of type 2 diabetes in high risk populations by 31%, on average. The use of exercise to manage and prevent type 2 diabetes may be underutilised (O'Hagan et al, 2013).

It is considered that there is no longer an evidence gap, rather there is an implementation gap, with services in Australia slow to implement exercise interventions for people with prediabetes and type 2 diabetes.

- For people with type 2 diabetes receiving an exercise intervention the expected annual saving for the health system expenditure is \$5,107 per person annually.
- For people with pre-diabetes receiving an exercise physiology, the expected annual saving in health system expenditure is \$1,977 per person annually.

(Deloitte Access Economics 2013) (Australian Bureau of Statistics 2012)

#### MENTAL HEALTH

Mental health disorders are the leading cause of disability among people of working age in the developed world (World Health Organization, 2015). The Australian Health Survey shows that almost one in ten Australians suffer from long term depression (9.7%), and 3.8% live with anxiety (Australian Bureau of Statistics, 2012). Bartels (2015) identified that adults with serious mental illness represent the single greatest and least recognised health disparity in the nation, reflected in a 13- to 30-year reduced life expectancy. As a result, health care costs are two to three times greater in adults with serious mental illness compared with general patient populations.

Exercise can be as efficacious as cognitive behavioural therapy or anti-depressant medication in combatting depression, and is associated with a wide range of physical benefits including stress and weight reduction, decreased blood pressure, reduced risk of cardiovascular and metabolic diseases, and improvements in cognitive functioning (Josefsson et al, 2014).

Each case of depression averted through exercise, the expected annual saving in health system expenditure is \$10062 per person annually. (Deloitte Access Economics 2013)

#### CARDIOVASCULAR DISEASE

Patients with chronic heart failure (CHF) experience marked reductions in their exercise capacity which has detrimental effects on their activities of daily living, health-related quality of life and ultimately their hospital admission rate and mortality. Further, the efficacy of exercise interventions for cardiovascular disease (CVD) is well established by a large number of meta-analyses. For example, Georgiou et al (2001) reported that for heart failure patients, exercise interventions were more cost effective compared to usual care by \$1,773 per life year saved.

The total lifetime burden of disease savings resulting from exercise interventions in people with CHF are estimated to be \$11,847 per person annually.

As the costs associated with accredited exercise physiologists delivering this intervention are substantially lower at \$1,903 per person. (Deloitte Access Economics 2013) (Piepoli et al 2004)

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### PREVENTION OF CHRONIC DISEASE

While the focus above is on exercise for management of chronic disease, rather than prevention, epidemiological data show that low exercise capacity is a strong predictor of all-cause mortality, a stronger association than that for smoking, hypertension, hyperlipidaemia and diabetes

(Coombes et al, 2013).

### SUMMARY

Overall, exercise interventions delivered by accredited exercise physiologists are estimated to be efficacious and highly cost effective in the Australian health care setting.

There is a high return on investment in treating people with chronic conditions, notably pre-diabetes and diabetes, mental illness and congestive heart failure.

### REFERENCES:

Written by Brad Jobson for Sports & Spinal. For a full reference list please contact Brad directly on: [Brad@sportsandspinalphysio.com.au](mailto:Brad@sportsandspinalphysio.com.au)

### MEET OUR EXERCISE PHYSIOLOGIST:

#### Lauren Sexton



Lauren grew up and completed her studies on the Sunshine Coast. After a sports related injury and an interest in the rehabilitation aspect, Lauren then decided to study Clinical Exercise Science.

As well as a clinical interest in musculoskeletal rehabilitation, Lauren also has interest in weight loss programming, strength and conditioning, falls prevention, chronic disease management and clinical Pilates.

Lauren enjoys the fact that her work significantly improves clients' Quality of Life and leads them back to more independence and a healthy lifestyle.