

Improving Participation in Resistance Training Among Older Adults in Park County, WY



Aaron Nichols | RUOP III | 2024 | UW School of Medicine

Hypothesis

Education about health benefits, safety, and resources for starting resistance training (RT) will improve participation in RT and thus the health of older adults in Park County, WY.



A view of downtown Cody, WY

Background

- 24.1% of residents are older than 65 (Wyoming average is 18.1%)
- 61% of residents report access to exercise opportunities (Wyoming average is 76%)

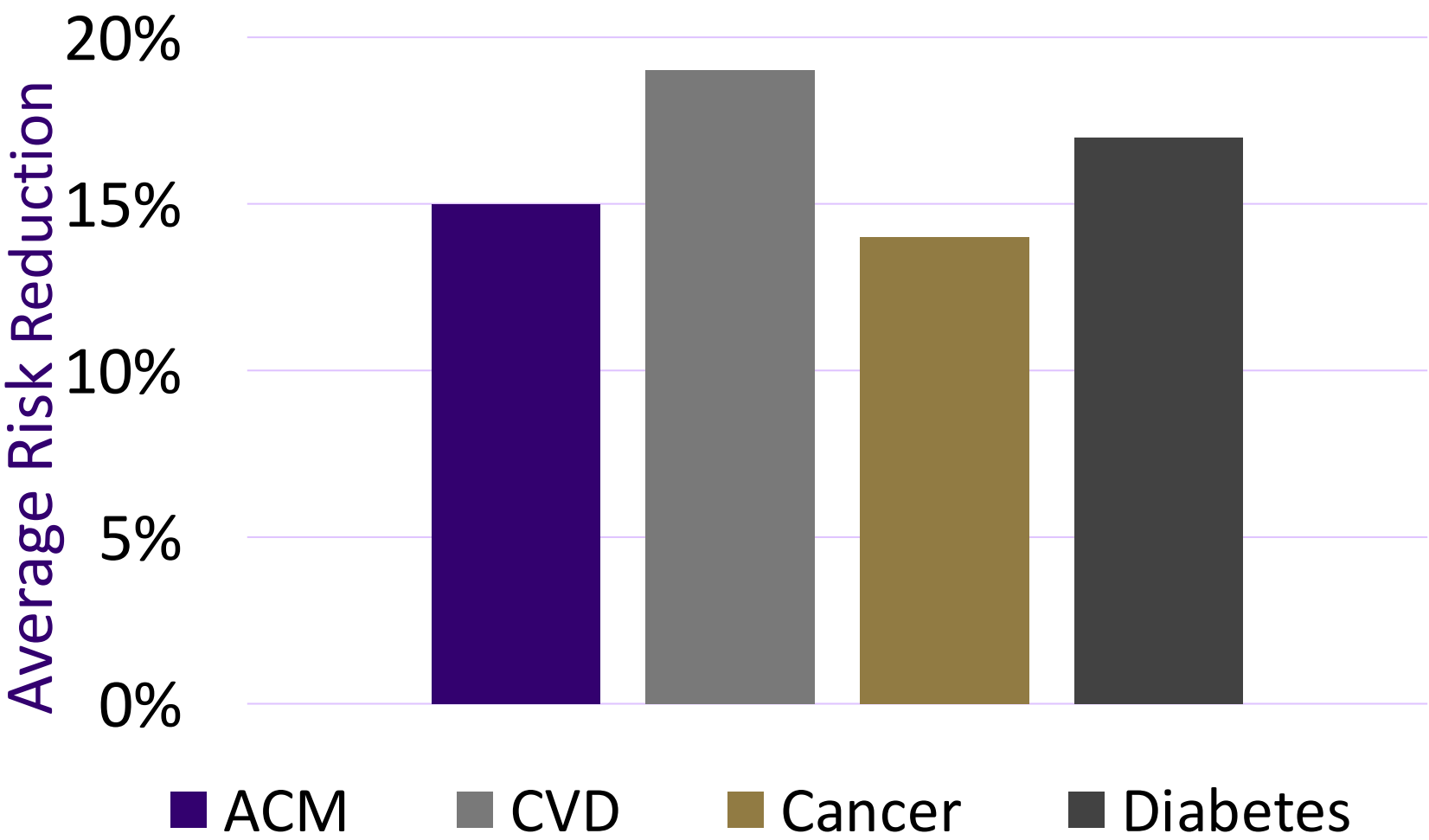
Health Needs:	Causes of Death:
Mental Health	Cancer
Physical Activity	Heart Disease
Cancer	Stroke
	Accidents (falls)
	Alzheimer's
	COPD

3 of 5 top health needs and 6 of 10 most common causes of death in Park County are addressed by RT.

Literature Review

- Participation in RT in older adults (>65 years of age), despite abundant benefits, is low (19%)
- RT causes improvements in quality of life, all-cause mortality (ACM), cardiovascular disease (CVD), hypertension, chronic obstructive pulmonary disease, osteoporosis, type 2 diabetes, and depression/anxiety symptoms.
- A systematic review on the effects of RT on physically frail patients showed only one case of shoulder pain out of 2,544 subjects.

Risk Reduction following 30-60 minutes of RT per week



Deliverables to Community

- The Senior Wellness Initiative (SWI) is a **free** program that guides older adults through twice weekly *evidence-based* resistance and balance training in Cody, Powell and Laramie.
- Patient brochures were designed to educate patients on the benefits and safety of RT, and how they can get started.
- Provider reference papers were included to address the same topics with far more detail.
- To reach the target population, providers need education about RT before they can make recommendations to patients.

Why should I start strength training?

Resistance training has many health benefits, especially for older adults. It can:

- Reduce the risk of death from ALL causes by an average of 15%, and as much as 26%.
- Improve cardiovascular health by reducing the risk of heart disease and hypertension.
- Strengthen bones and prevent osteoporosis, thus reducing the risk of fractures.
- Help manage type 2 diabetes by improving insulin sensitivity.
- Aid in weight management and reduce obesity.
- Lower the risk of many types of cancer.
- Decrease fall risk by improving balance and muscle strength.
- Enhance cognitive function and reduce the risk of dementia.

Quality of life improvements:

In addition to tremendous health benefits, there is a tangible impact on quality of life and activities of daily living:

- Reduce pain and disability in conditions like osteoarthritis and lower back pain.
- Increase muscle strength and mass, counteracting age-related muscle loss and frailty.
- Improve mental health by reducing symptoms of depression and anxiety.
- Extend independent living by maintaining physical capabilities.
- Improve sleep quality.

FREE Classes Available

In Cody, Powell, and Laramie, Wyoming, there is a **FREE** program called the Senior Wellness Initiative (SWI). It offers classes twice a week to help you get started with resistance training. To schedule your first session call Deb White at (307)-899-4372.

Cody: Located at Wyoming Sport and Fitness
• Wednesday: 8:00-9:00 AM or 9:00-10:00 AM
• Thursday: 10:00-11:00 AM
• Friday: 8:00-9:00 AM or 9:00-10:00 AM

Powell: Located at Northwest College Gym
• Tuesday: 10:00-11:00 AM
• Thursday: 10:00-11:00 AM

Laramie: Located at Altitude Fitness
• Tuesday: 10:30-11:30 AM
• Friday: 10:30-11:30 AM

For more information, contact:
• Deb White (Cody Lead): (307)-899-4372
• Aaron Nichols (Head Coach): (307)-899-7298
• Jared Nelson (Laramie Lead): (972)-679-0527

A portion of the Patient Brochures



Participant at the SWI class in Cody

Next Steps

- Patient brochures and provider reference papers were distributed to Billing's Clinic, the Heart Mountain Free Clinic (HMFC), and Wyoming Sport and Fitness.
- Targets of the distribution plan are older adults with medical conditions that stand to improve from RT intervention.
- The ideal outcome is more RT prescription for older adults, and thus increased participation and improved health. This would be seen in improved reported access to exercise and lower mortality rates.