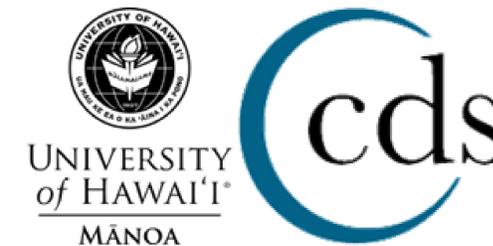




# Impact of a Life Coaching and Pharmacist Counseling Intervention on Participant Health, Employment, and Disability

Contact Information for the Live Healthy...Work Well Project: Rebecca Rude Ozaki, PhD Phone: (808) 956-9376 rozaki@hawaii.edu  
Jean Isip Schneider, MEd, SPHR (808) 956-5376 isip@hawaii.edu



## 1. Abstract

Many working adults with diabetes face major barriers to effective disease self management. This could lead to health deterioration, loss of employment, and dependence on public assistance. The Hawaii Demonstration to Maintain Independence and Employment – Live Healthy Work Well research project goal was to assist those who are at high risk of becoming disabled and unemployed as a result of a chronic illness, diabetes. The intent of the intervention was to potentially improve the participants' health, employability, and independence forestalling access to disability benefits.

A randomized trial control design using a 2:1 distribution ratio assigned 190 participants to treatment (N=128) and control (N=62) groups. Treatment group participants received life coaching, pharmacist counseling, and other supports while tracking health and employment outcomes. Self-reported diabetes self-efficacy, quality of life, functioning, hours worked, work productivity, and use of government services data were obtained at baseline, 6, 12, and post exposure 18 month period. Additional health information was obtained from healthcare providers. Generalized linear models for repeated measures are being used to evaluate the effect of the intervention on these measures. Surveys and focus groups were used to obtain participant perceptions about the intervention.

Preliminary results show that body mass index and diabetes self-efficacy changes were significantly better in the treatment group.

The use of Life Coaching and Pharmacists as counselors is an emerging service delivery approach that was well received by employed individuals with diabetes and has the potential to delay functional decline and reliance on government assistance programs. Findings have implications for employers, health care providers, and early intervention models intended to prevent disability and support the ongoing employment of individuals with chronic conditions.

## 2. Research Question

Can a program of Life Coaching, Pharmacist Counseling and other supports **forestall** or **prevent** the loss of employment and independence due to a potentially disabling and medically determinable chronic condition – Diabetes?

### Quantitative Hypotheses

There will be a difference in outcomes between the intervention and control group in the following areas:

- 1) Improved health status
- 2) Continued employment
- 3) Maintain independence from SSI/SSDI

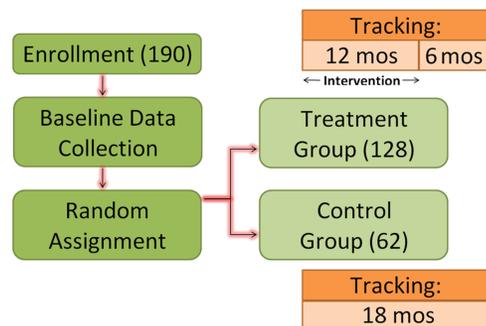
### Qualitative Research Questions

What are the participant's perceptions of the value, usefulness, and challenges of a person-centered program designed to improve health and employment.

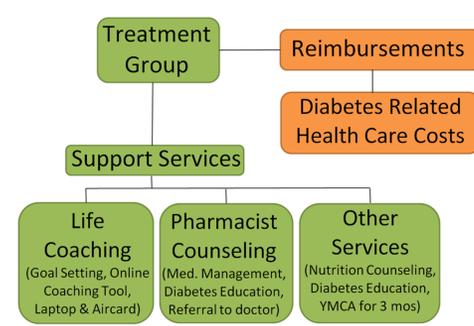
## 3. Baseline Demographics

<b>Diabetes Type</b> Type 2: 86%	<b>Gender</b> Female: 63%
<b>Years since diagnosis</b> Mean: 8 yrs	<b>Age</b> Mean: 48 yrs
<b>Hemoglobin A1c</b> Mean: 7.8%	<b>Education</b> Bachelor's degree or higher: 50%
<b>Body Mass Index (BMI)</b> Overweight or Obese: 86%	<b>2007 Annual Earnings</b> Mean: \$44K
<b>Healthcare Coverage</b> Insured: 97%	<b>Employment</b> Mean hrs worked - past week: 38 hrs

## 4. Experimental Design: RCT



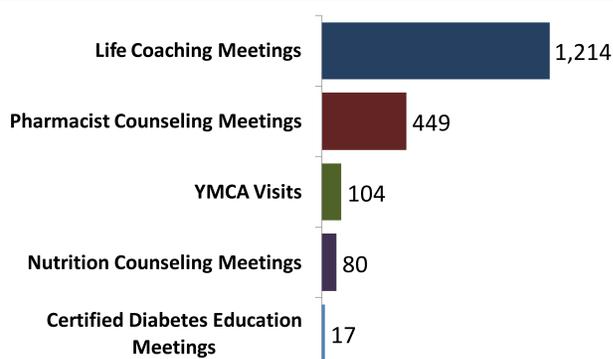
## 5. Intervention Components



## 6. Methods

Health	<ul style="list-style-type: none"> <li>Well being – SF-12 physical and mental summary scores (SR = Self Reported)</li> <li>Functioning – Activities of Daily Living, Instrumental Activities of Daily Living (SR)</li> <li>Diabetes self efficacy – U Michigan Diabetes Empowerment Scale short form (SR)</li> <li>Diabetes management – Hemoglobin A1c</li> <li>Weight loss – Body mass index</li> </ul>
Employment	<ul style="list-style-type: none"> <li>Hours worked (SR)</li> <li>Earnings (from Hawaii Department of Labor)</li> <li>Work Productivity and Activity Impairment (specific health problem version)</li> </ul>
Disability	<ul style="list-style-type: none"> <li>Participation in government programs (SR): Temporary Assistance to Needy Families, Food Stamps, Section 8 or other subsidized housing, Medicaid, Vocational Rehabilitation</li> </ul>

## 7. Intervention: Service Usage



**Life Coaching was the dominant intervention component accessed.**

**“Coaching allows me to share concerns about other aspects of my life which affects the way I deal with my health.”**

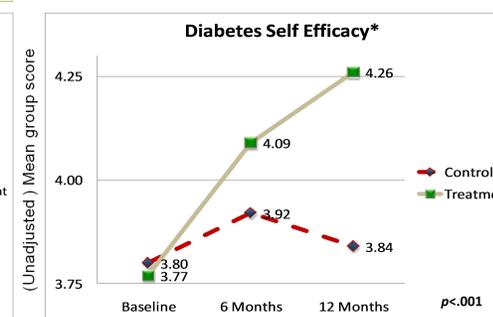
## 8. Preliminary 12 Month Findings

Measure	ANCOVA p-value
Diabetes self-efficacy	<.001
Body Mass Index	<.001
Hours worked	.08
Effects of diabetes on work productively	.80
# of government programs utilized	.90

Diabetes self efficacy and body mass index changes were significantly better in the treatment than the control group.

No significant differences between treatment and control groups for employment and disability measures.

*“She was completely focused on work prior to the project and she is still committed to her work but she is truly happy and balanced and living an extremely active lifestyle along with consistent nutrition habits that support improvements in her diabetes management, including weight loss, blood sugar control and reductions in medications” (Coach Exit Survey)*



\* Score on the University of Michigan Diabetes Empowerment Scale – Short Form (DES-SF)

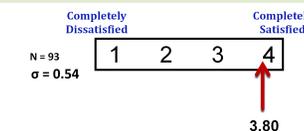
## 9. Satisfaction

### Satisfaction with Life Coaching: 12 months

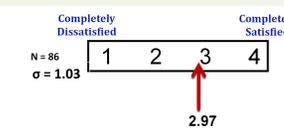
How Satisfied are you with your coach's...	N= 93	Mean	Std. Dev
Availability to answer questions, follow through on commitments, and be supportive and encouraging.	3.85	0.46	
Ability to elicit answers, actions, and explore alternatives.	3.83	0.46	
Efforts to be non-judgmental and respectful of your views, beliefs, needs, and goals.	3.90	0.39	

### Satisfaction with Pharmacist Counseling: 12 months

How satisfied are you with your pharmacist	N	Mean	Std. Dev
Respectful, non-judgmental, and concerned.	86	3.16	0.92
Collaborated & brainstormed solutions that enable informed decision making.	85	3.08	1.00
Asked about physician visits, and discussed recommendations or health changes.	85	3.09	0.96
Time spent with you.	86	3.13	0.97



*“Over the past 12 months, my participation in the program has definitely affected the management of my diabetes in the sense that it went from pretty much zero to actually something.... I believe that the aspect of the project that brought about the changes specifically was the life coach.”*



*“Seeing the pharmacist and a dietician, even though I've done that many, many times in the past... I think it brought back the feeling that these are necessary things that you need to have... as a professional support. Things you may not know, they can bring in new ideas or new products and all that.”*

## 10. Implications

When offered an array of diabetes services, patients gravitate to the ones they find most useful. Supporting people with diabetes to set goals and access services resulted in high satisfaction which may correlate to better diabetes health outcomes. While more research is needed, the life coaching and pharmacist counseling model shows promise as a way to assist people with diabetes and other chronic conditions. Preliminary findings indicate:

### THE INTERVENTION:

- Increased diabetes self efficacy
- Improved health through weight loss and decreased BMI measure
- Increased participant knowledge, lifestyle changes and improved diabetes management
- May be more effective for those with poor chronic disease management skills

### FUTURE RESEARCH

- This research will be used to inform federal legislation for potential policy and funding options
- This research contributes to the literature for future community-based person centered approaches for adults with