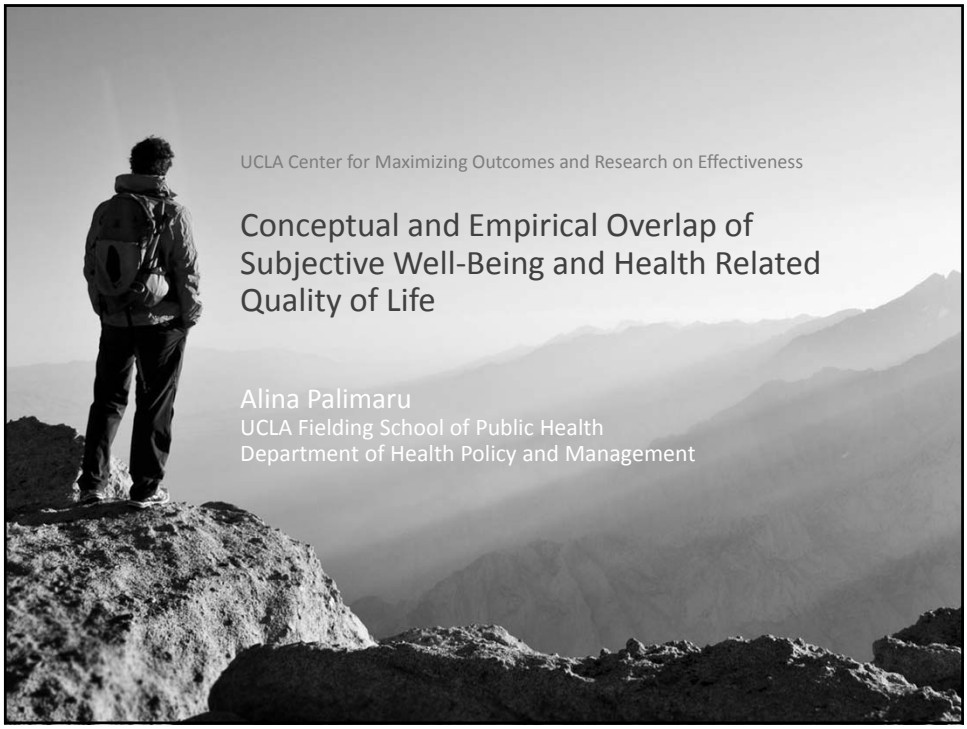
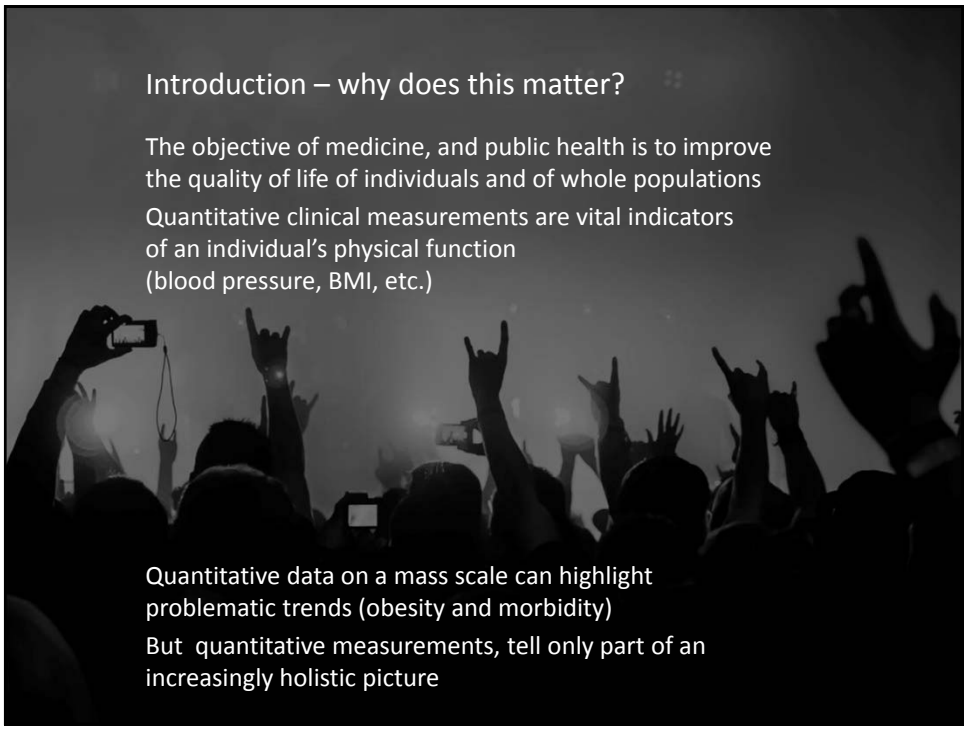

UCLA Center for Maximizing Outcomes and Research on Effectiveness
Conceptual and Empirical Overlap of Subjective Well-Being and Health Related Quality of Life
Alina Palimaru
UCLA Fielding School of Public Health
Department of Health Policy and Management


Introduction – why does this matter?
The objective of medicine, and public health is to improve the quality of life of individuals and of whole populations
Quantitative clinical measurements are vital indicators of an individual's physical function (blood pressure, BMI, etc.)
Quantitative data on a mass scale can highlight problematic trends (obesity and morbidity)
But quantitative measurements, tell only part of an increasingly holistic picture

If a good quality of life is what individuals and nations aspire to, we need a way of measuring, recording, and comparing it

In the healthcare profession, Health Related Quality of Life measurements are used at both local and national level

In public policy and economics Subjective Well-Being is also used as a measure of how individuals perceive their own quality of life

In this presentation I will compare HRQOL and SWB

Part I: What is Subjective Well-Being?

Ryan and Deci (2001) Model*
Hedonic Well-Being
Eudaimonic Well-Being

Dolan et al. (2011) Model**
Evaluative Well-Being
Eudaimonic Well-Being
Experienced Well-Being

** Dolan P, Layard R, & Metcalfe R (2011). Measuring subjective wellbeing for public policy: Recommendations on Measures (No. 23). London: Centre for Economic Performance, LSE.*

*** Ryan, R., and Deci, E.L. (2001). On Happiness and Human Potentials: A Review of Research on Hedonic and Eudemonic Well-Being. Annu. Rev Psychol, 141-166.*

Part I: What is Health Related Quality of Life?

One of several patient-reported outcome measures (PROMs)

Functioning and Well-Being in three domains of health:
Physical, Mental, and Social

Examples include: SF-36 and PROMIS

Increasingly used in clinical practice

Part II: Research Question and Methods

What are the communalities among SWB & HRQOL measures?

Conceptual approach

Literature Review search terms: combinations of *quality of life*, *health-related quality of life, well-being,* and *subjective well-being*

Reviewed 72 articles and two systematic reviews on SWB and HRQOL

Empirical approach

Analyzed two datasets collected in the Patient Reported Outcomes Measurement Information System (PROMIS®) project

First sample: 21,133 individuals

Second sample: 2,996 individuals

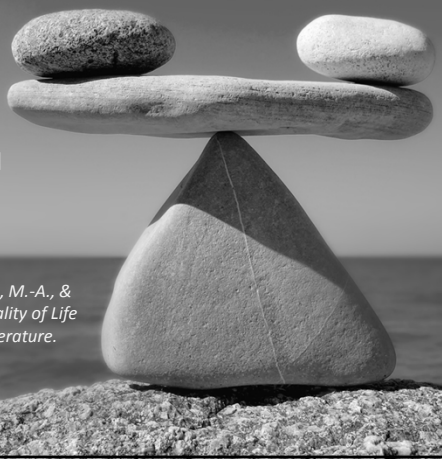
Examined the associations of overall quality of life (evaluative SWB) with HRQOL measures

Part III: Conceptual Approach
Health Related Quality of Life

Taillefer et al. (2003)*

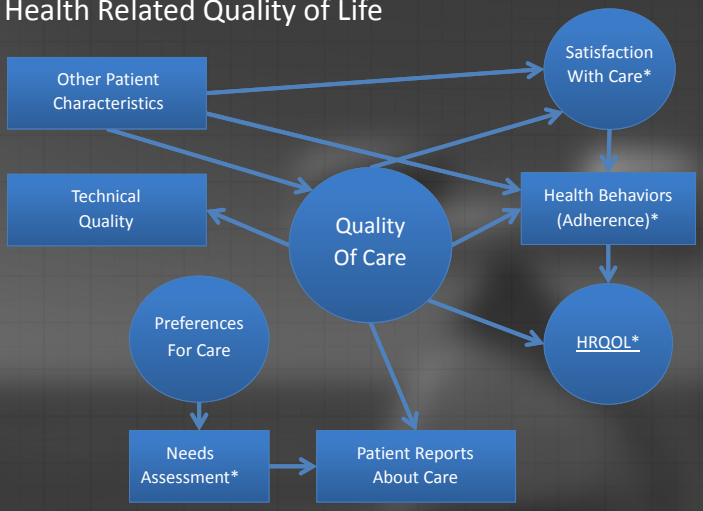
Systematic review of 68 HRQOL models between 1965 and 2001

Fewer than half explained their QOL concepts clearly

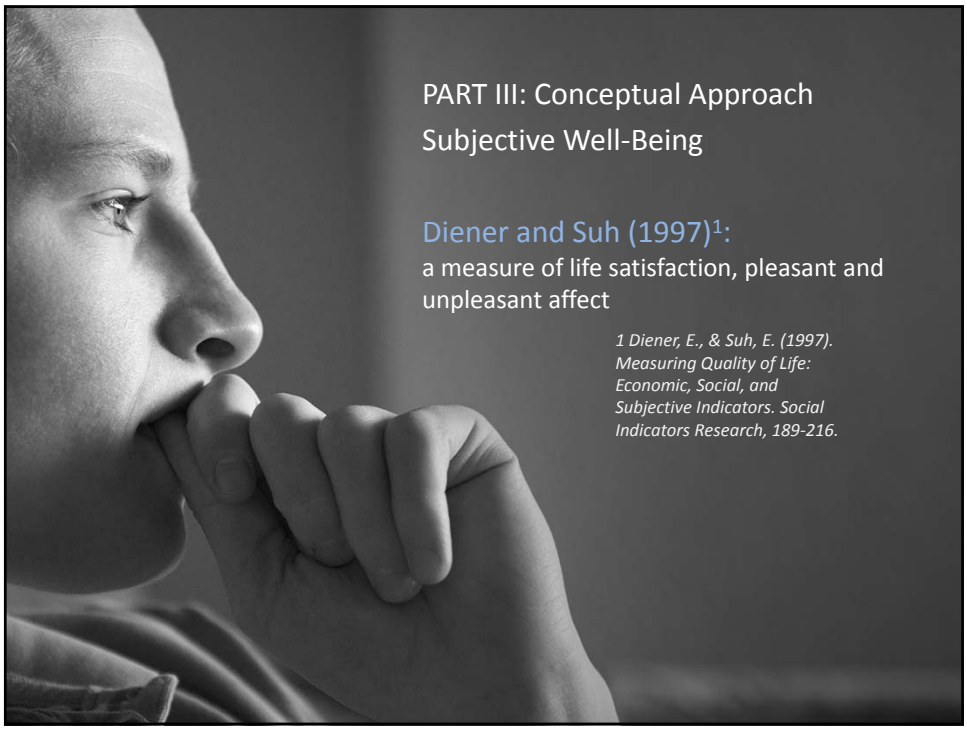


** Taillefer, M. C., Dupuis, G., Roberge, M.-A., & Lemay, S. (2003). Health-Related Quality of Life Models: Systematic Review of the Literature. Social Indicators Research, 293-323.*

Part III: Conceptual Approach
Health Related Quality of Life



Fung, C, & Hays, R (2008). Prospects and challenges in using patient reported outcomes in clinical practice. Qual life res, 1297-1302.

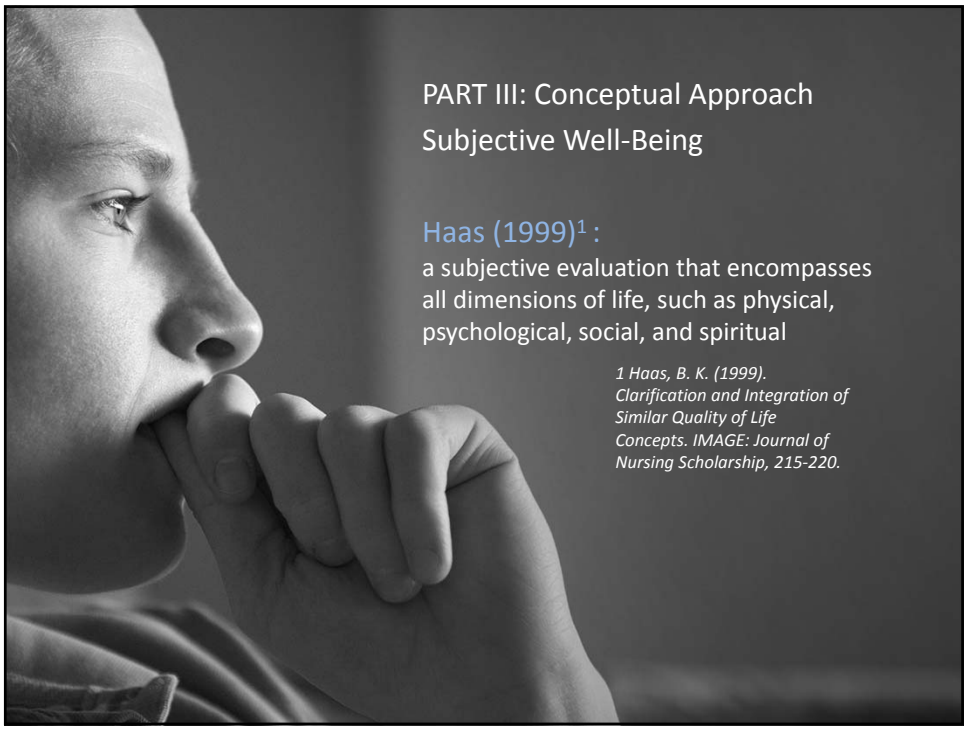


PART III: Conceptual Approach
Subjective Well-Being

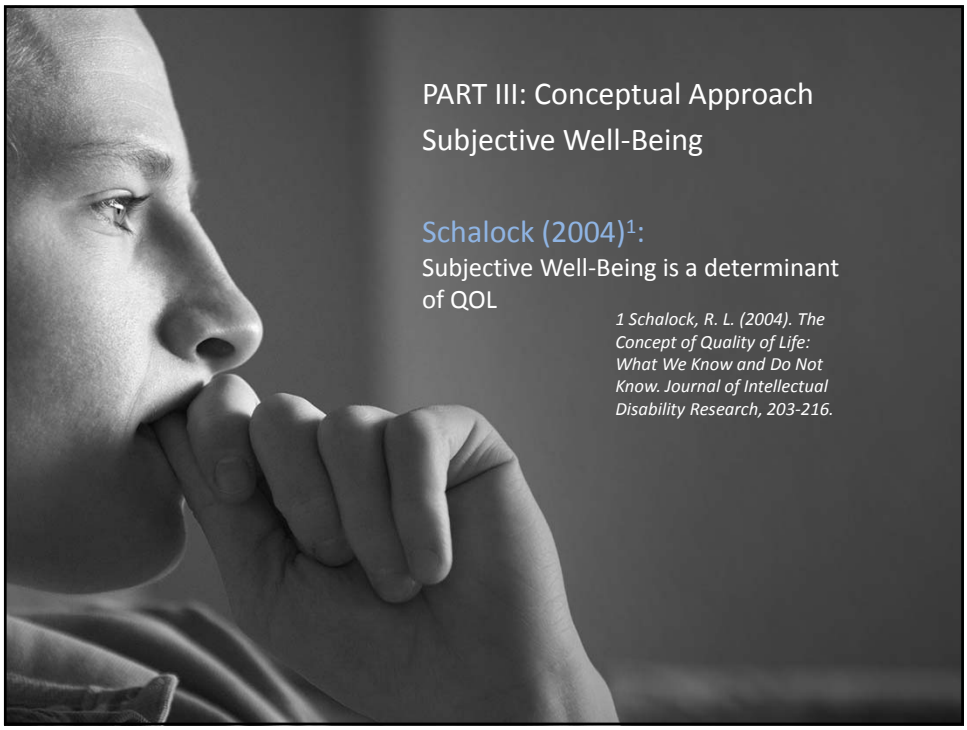
Diener and Suh (1997)[1]:
a measure of life satisfaction, pleasant and unpleasant affect

1 Diener, E., & Suh, E. (1997). Measuring Quality of Life: Economic, Social, and Subjective Indicators. Social Indicators Research, 189-216.

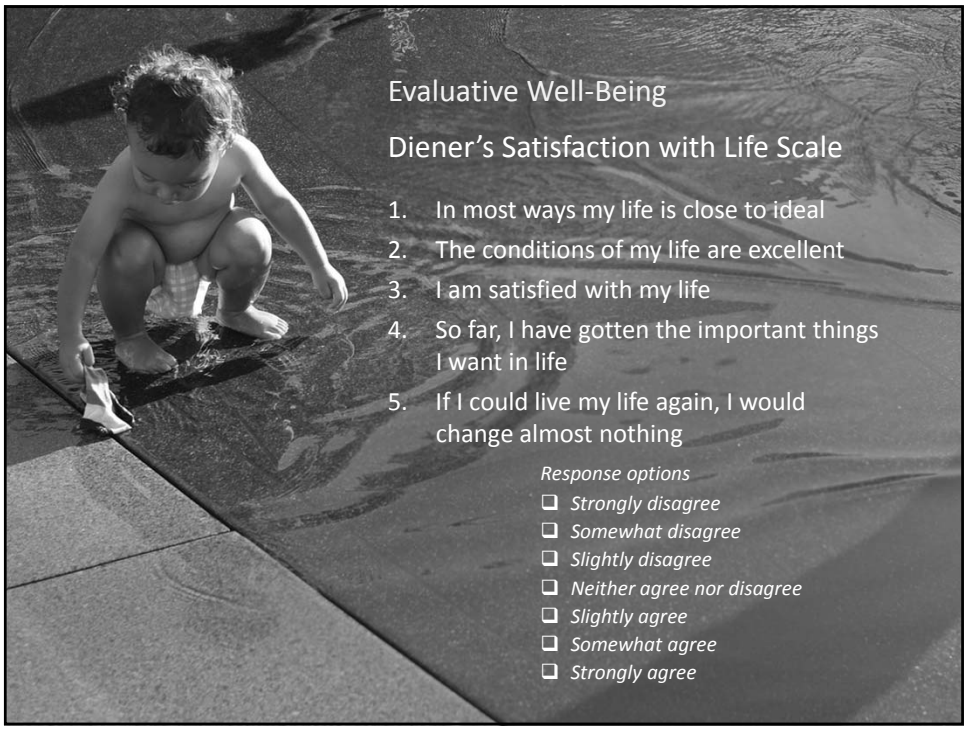

PART III: Conceptual Approach
Subjective Well-Being
Christakopoulou et al. (2001)[1]:
a multidimensional concept of satisfaction with the built environment, personal safety, community spirit, social interactions, and community characteristics
1 Christakopoulou, S., Dawson, J., & Aikaterini, G. (2001). The Community Well-Being Questionnaire: Theoretical Context and Initial Assessment of Its Reliability and Validity. Social Indicators Research, 319-349.


PART III: Conceptual Approach
Subjective Well-Being
Haas (1999)[1] :
a subjective evaluation that encompasses all dimensions of life, such as physical, psychological, social, and spiritual
1 Haas, B. K. (1999). Clarification and Integration of Similar Quality of Life Concepts. IMAGE: Journal of Nursing Scholarship, 215-220.

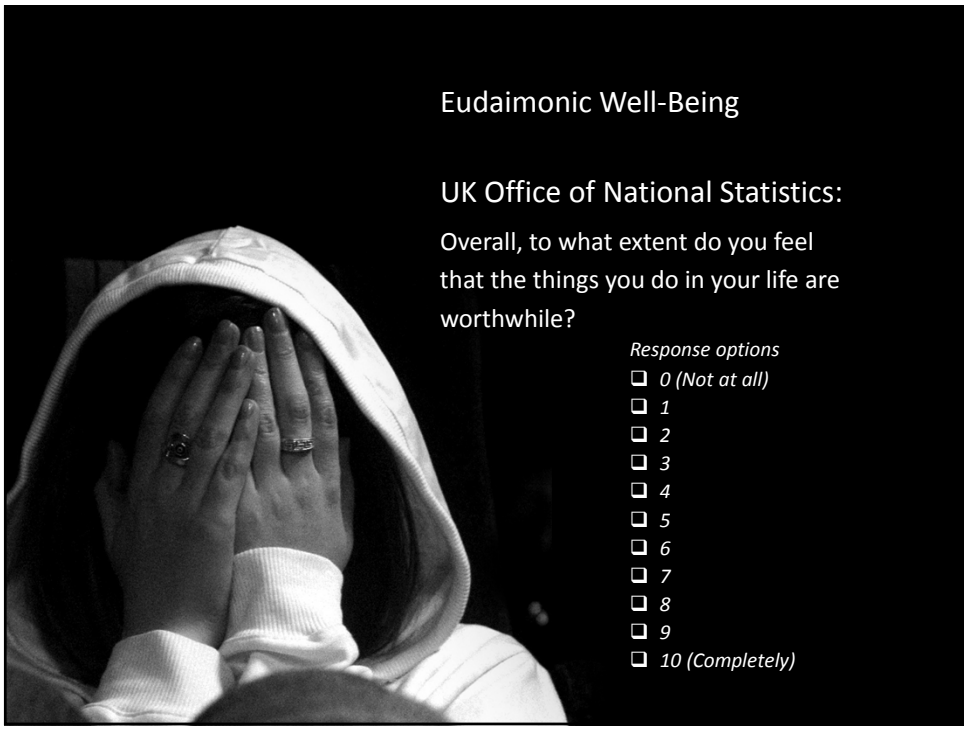

PART III: Conceptual Approach
Subjective Well-Being
Helliwell & Putnam (2004)[1]:
a person's own individual valuation in response to their objective conditions
1 Helliwell, J. F., & Putnam, R. D. (2004). The Social Context of Well-Being. Philosophical Transactions of the Royal Society (London), 1435-1446.

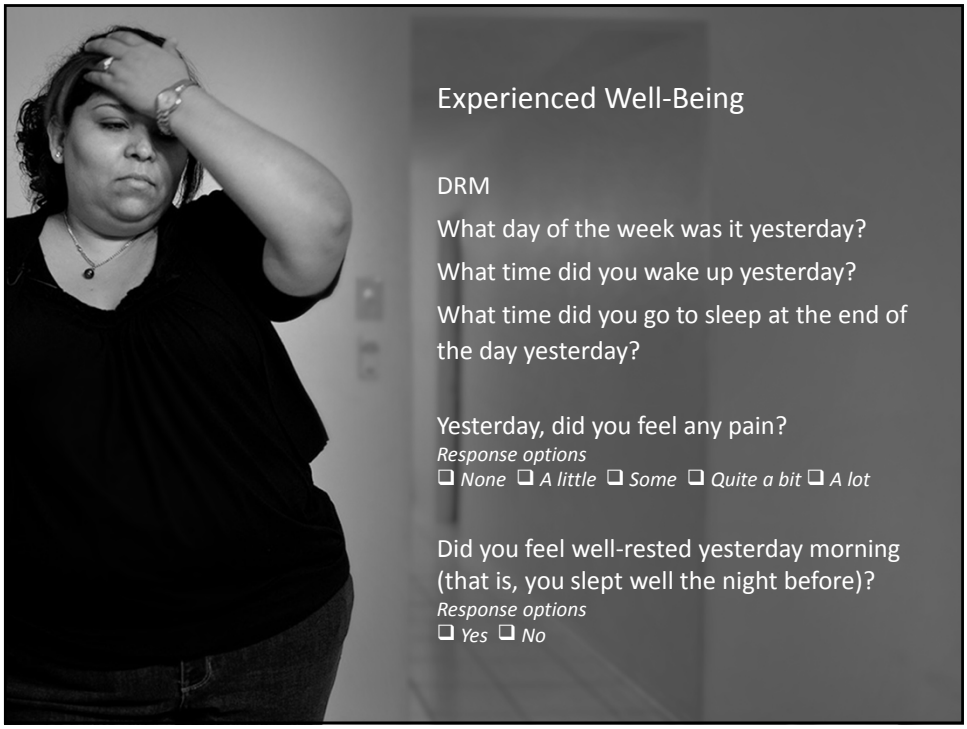

PART III: Conceptual Approach
Subjective Well-Being
Schalock (2004)[1]:
Subjective Well-Being is a determinant of QOL
1 Schalock, R. L. (2004). The Concept of Quality of Life: What We Know and Do Not Know. Journal of Intellectual Disability Research, 203-216.

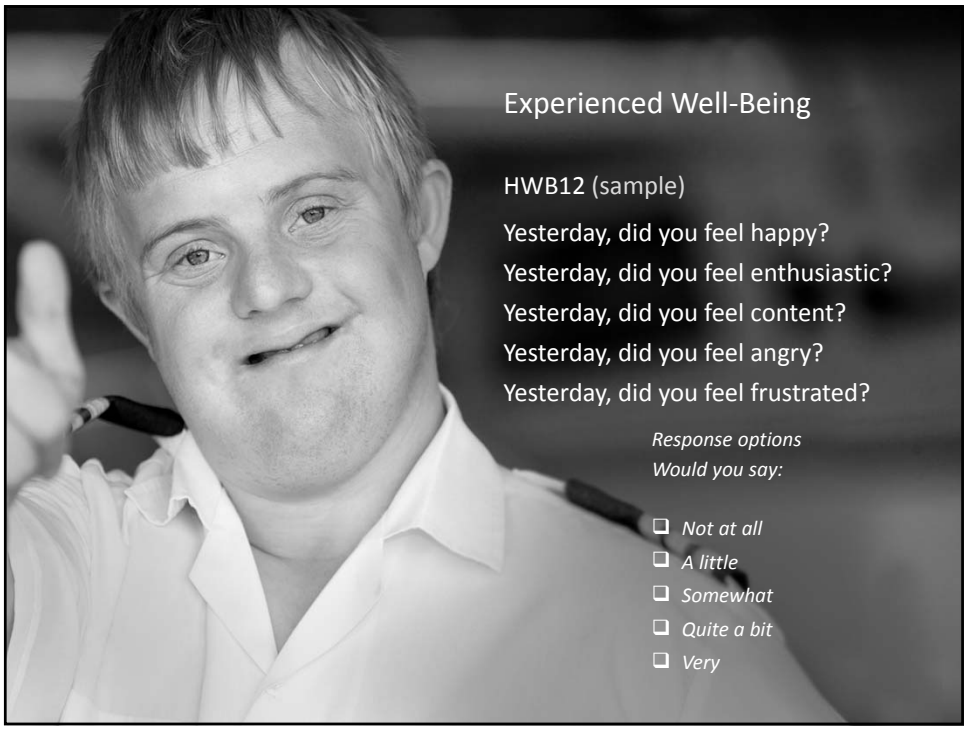

PART III: Conceptual Approach
Subjective Well-Being
Other studies[1-5]:
Quality of Life and Subjective Well-Being are equivalent
1 Felce, D., & Perry, J. (1995). Quality of Life: Its Definition and Measurement. Research in Developmental Disabilities, 51-74. 2 Naess, S. (1999). Subjective Approach to Quality of Life. Feminist Economics, 115-118. 3 Kahn, R. L., & Juster, F. T. (2002). Well-Being: Concepts and Measures. Journal of Social Issues, 627-644. 4 Christoph, B., & Noll, H.-H. (2003). Subjective Well-Being in the European Union during the 90s. Social Indicators Research, 521-546. 5 Janse, A., Gemke, R., Uiterwaal, C., Tweel, I. v., Kimpen, J., & Sinnema, G. (2004). Quality of Life: Patients and Doctors Don't Always Agree: a Meta-Analysis. Journal of Clinical Epidemiology, 653-661.


Evaluative Well-Being
Diener's Satisfaction with Life Scale
1. In most ways my life is close to ideal
2. The conditions of my life are excellent
3. I am satisfied with my life
4. So far, I have gotten the important things I want in life
5. If I could live my life again, I would change almost nothing
Response options
Strongly disagree
Somewhat disagree
Slightly disagree
Neither agree nor disagree
Slightly agree
Somewhat agree
Strongly agree


Evaluative Well-Being
Overall life satisfaction
How satisfied are you with your life in general?
Response options
Very satisfied
Somewhat satisfied
Somewhat dissatisfied
Very Dissatisfied


Eudaimonic Well-Being
UK Office of National Statistics:
Overall, to what extent do you feel that the things you do in your life are worthwhile?
Response options
0 (Not at all)
1
2
3
4
5
6
7
8
9
10 (Completely)


Experienced Well-Being
DRM
What day of the week was it yesterday?
What time did you wake up yesterday?
What time did you go to sleep at the end of the day yesterday?
Yesterday, did you feel any pain?
Response options
❑ None ❑ A little ❑ Some ❑ Quite a bit ❑ A lot
Did you feel well-rested yesterday morning (that is, you slept well the night before)?
Response options
❑ Yes ❑ No


Experienced Well-Being
HWB12 (sample)
Yesterday, did you feel happy?
Yesterday, did you feel enthusiastic?
Yesterday, did you feel content?
Yesterday, did you feel angry?
Yesterday, did you feel frustrated?
Response options
Would you say:
❑ Not at all
❑ A little
❑ Somewhat
❑ Quite a bit
❑ Very

PART III: Conceptual Approach - Intersection between SWB an HRQOL

Taillefer et al. (2003)*:

- Systematic review of 68 HRQOL models between 1965 and 2001.
- ˜ 30% assumed HRQOL and SWB to be identical
- Most assumed SWB to be a component of HRQOL.

** Taillefer, M. C., Dupuis, G., Roberge, M.-A., & Lemay, S. (2003). Health-Related Quality of Life Models: Systematic Review of the Literature. Social Indicators Research, 293-323.*

PART III: Conceptual Approach - Intersection between SWB an HRQOL

Hays, Hahn and Marshall (2002)*:

- HRQOL includes functioning and well-being;
- Well-being includes happiness, sadness, depression, and anxiety.

** Hays, R. D., Hahn, H., & Marshall, G. (2002). Use of the SF-36 and Other Health-Related Quality of Life Measures to Assess Persons With Disabilities. Arch Phys Med Rehabil, S4-S9.*

PART III: Conceptual Approach - Intersection between SWB an HRQOL

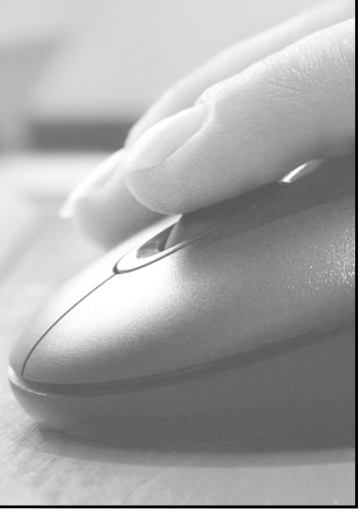
Park (2015)*: Meaning is reflected in HRQOL:

- cognitive elements
- motivational aspects
- evaluative/emotional elements

Links meaning and HRQOL through three influencing pathways:

- health behaviors
- psychological processes
- coping functions

**Park, C. L. (2015). Integrating positive psychology into health-related quality of life research. Quality of Life Research, 1645–1651.*



PART III: Conceptual Approach - Intersection between SWB an HRQOL

Miller et al. (2014)*: Assessed predictors of SWB:

- Full-time employment
- Part-time employment
- Severity of Dependence Scale
- MCS (mental health summary)
- PCS (physical health summary)

Found that the SF-8 mental health item and part-time employment were the only predictors of SWB.

**Miller, P. G., Hyder, S., Zinkiewicz, L., Droste, N., & Harris, J. B. (2014). Comparing subjective well-being and health-related quality of life of Australian drug users in treatment in Regional and Rural Victoria. Drug and Alcohol Review, 651-657.*

PART III: Conceptual Approach - Intersection between SWB an HRQOL

Oberje´ et al. (2014)*: among people living with HIV in the Netherlands, SWB was strongly associated with the SF-12 v2 mental health summary score (r=.41) and environmental well-being (i.e. general satisfaction with and safety of one's surroundings, r=0.51).

**Oberje´, E. J., Dima, A., van Hulzen, A. G., Prins, J. M., & de Bruin, M. (2014). Looking Beyond Health-Related Quality of Life: Predictors of Subjective Well-Being among People Living with HIV in the Netherlands. AIDS Behav, 459-464.*

PART III: Conceptual Approach - Intersection between SWB an HRQOL

Spiro and Bosse (2000)*

- Among relatively healthy older men, HRQOL and SWB overlap marginally
- HRQOL is important for its physical component
- SWB is important for its psychological aspects

**Spiro, A., & Bosse, R. (2000). Relations Between Health-Related Quality of Life and Well-Being: The Gerontologist's New Clothes? International Journal of Aging and Human Development, 297-318.*

Part IV: Empirical Approach - Characteristics of the two samples

Sample characteristics for the Patient Reported Outcomes Measurement Information System (PROMIS®) Datasets

Characteristic	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Age (median)	50	52
Female Gender	52%	51%
Race / Ethnicity		
Latino	9%	17%
Non-Hispanic Black	9%	
Non-Hispanic White	82%	60%
Other	9%	
Education		
Less than High School	3%	14%
High School graduate	16%	31%
More than High School	43%	55%

Part IV: Empirical Approach

Sample frequency for Global Quality of Life

GLOBAL QOL		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	19%	12%
Very good	38%	31%
Good	29%	33%
Fair	11%	19%
Poor	3%	5%

Part IV: Empirical Approach

Sample frequency for Global Quality of Life

GLOBAL QOL		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	19%	12%
Very good	38%	31%
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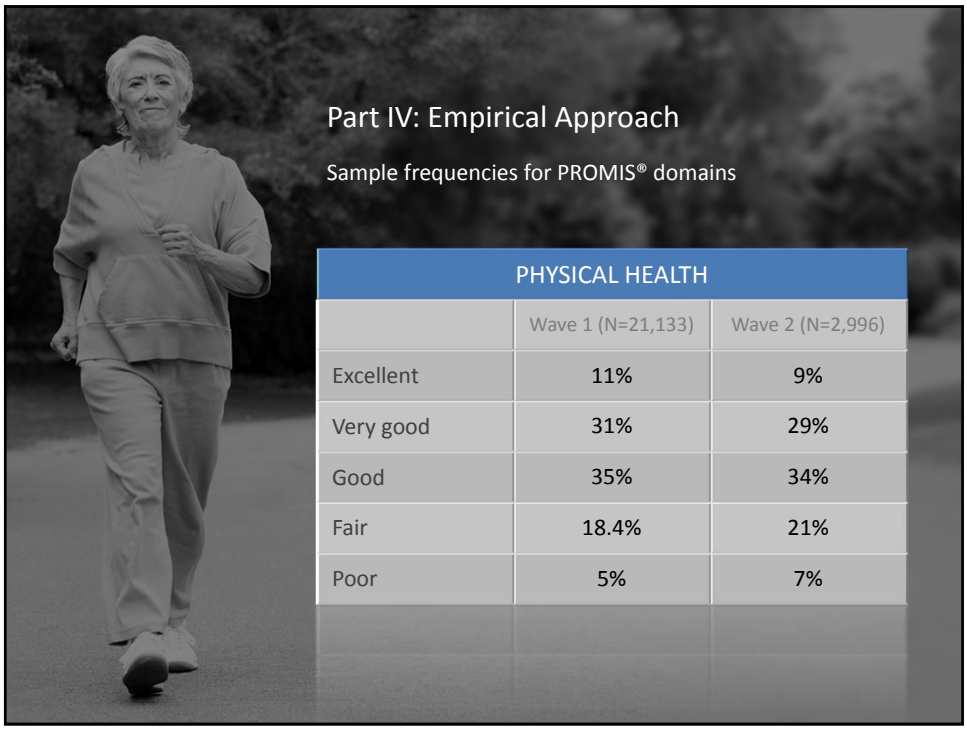
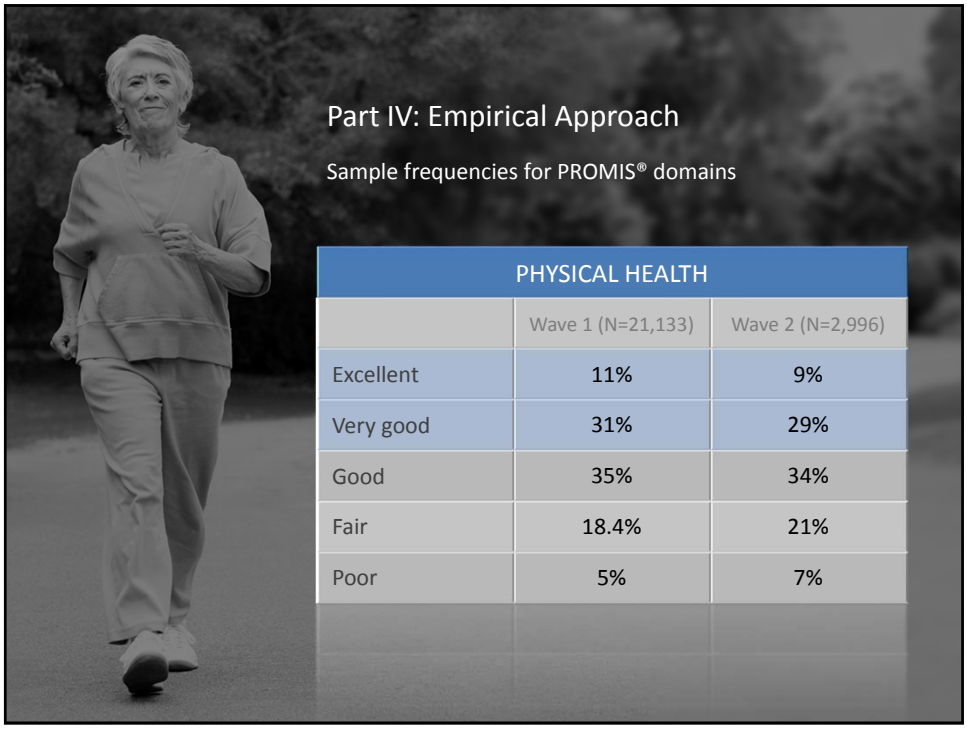
Poor	3%	5%



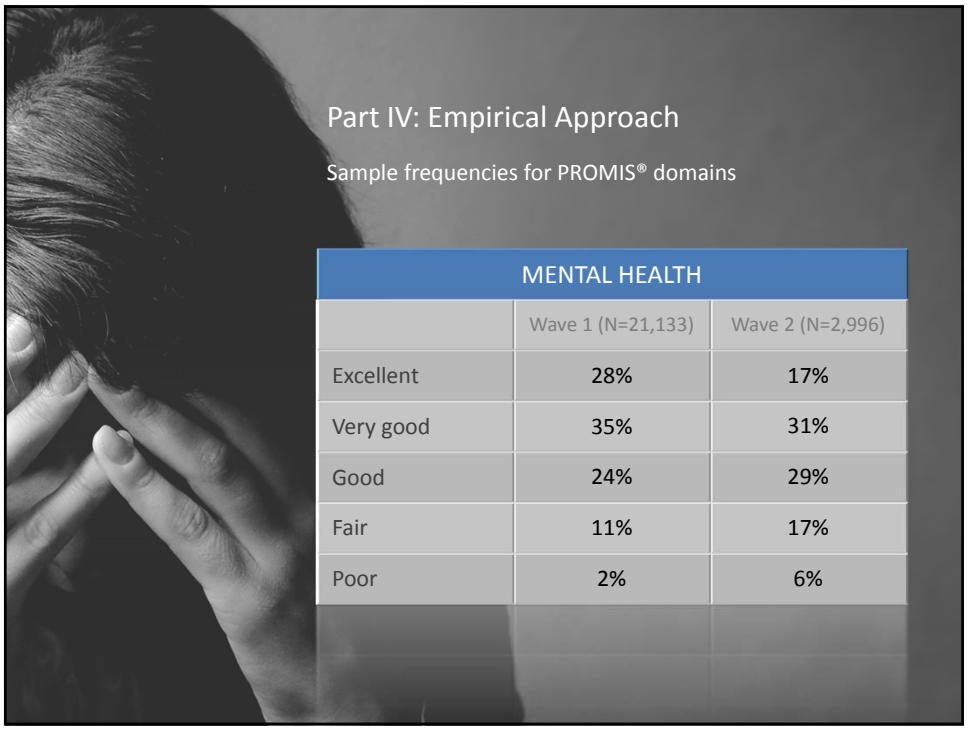
Part IV: Empirical Approach

Sample frequencies for PROMIS® domains

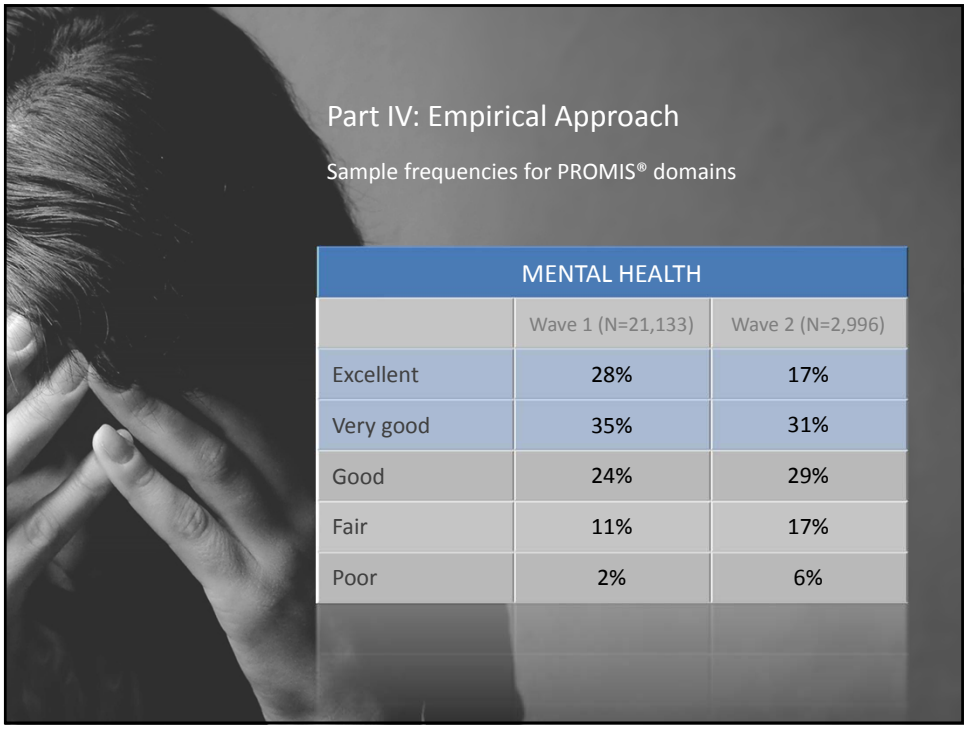
PHYSICAL HEALTH		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	11%	9%
Very good	31%	29%
Good	35%	34%
Fair	18.4%	21%
Poor	5%	7%



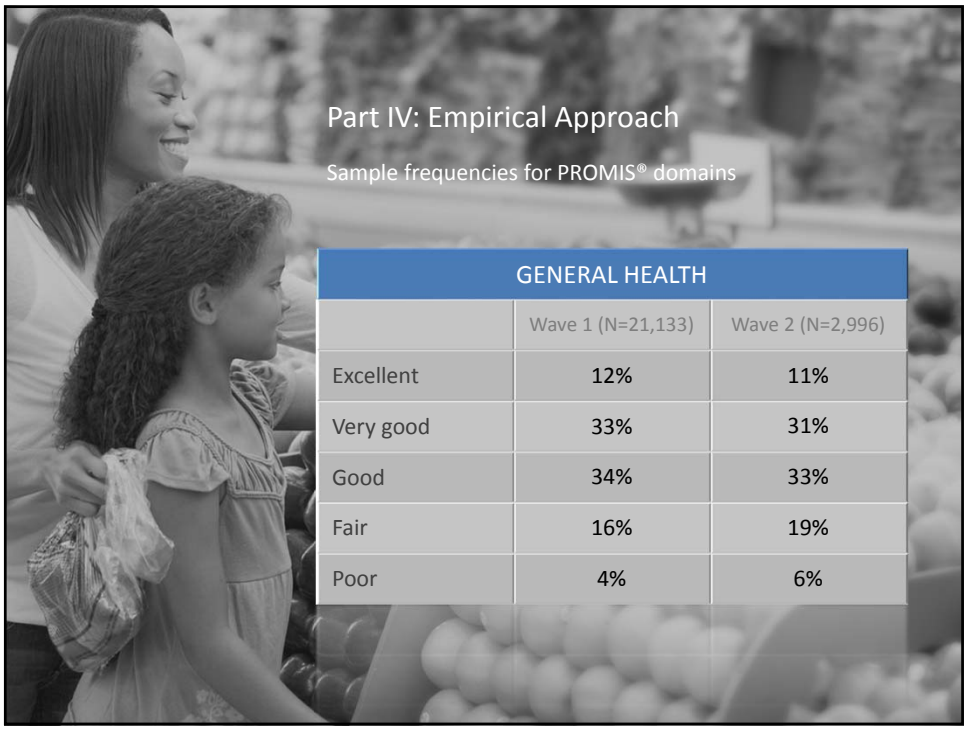
PHYSICAL HEALTH		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	11%	9%
Very good	31%	29%
Good	35%	34%
Fair	18.4%	21%
Poor	5%	7%



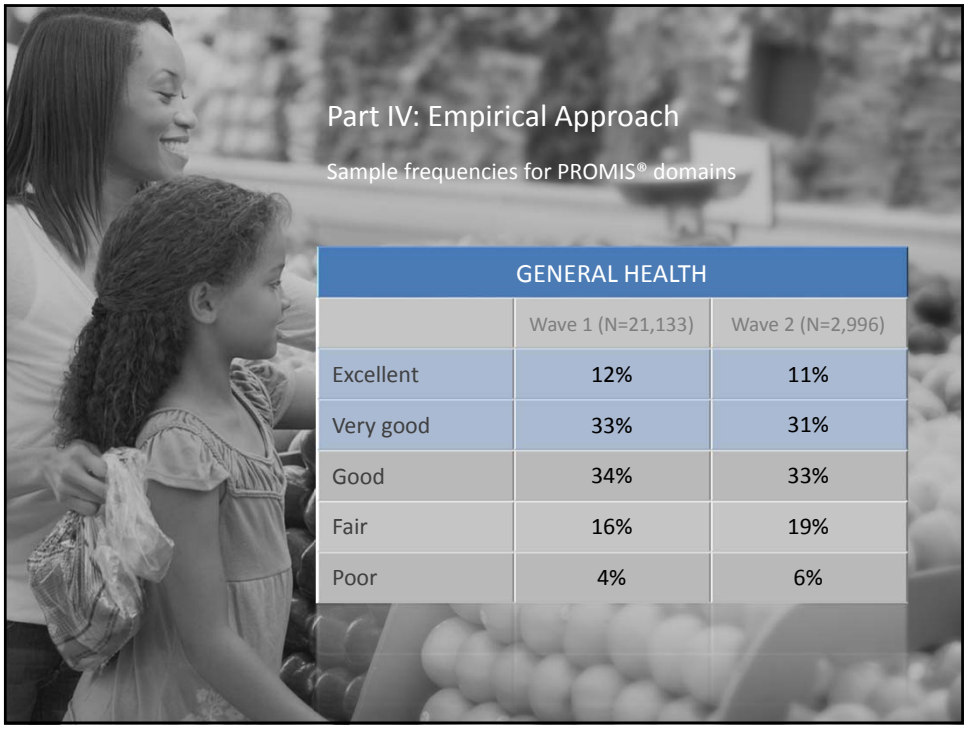
MENTAL HEALTH		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	28%	17%
Very good	35%	31%
Good	24%	29%
Fair	11%	17%
Poor	2%	6%



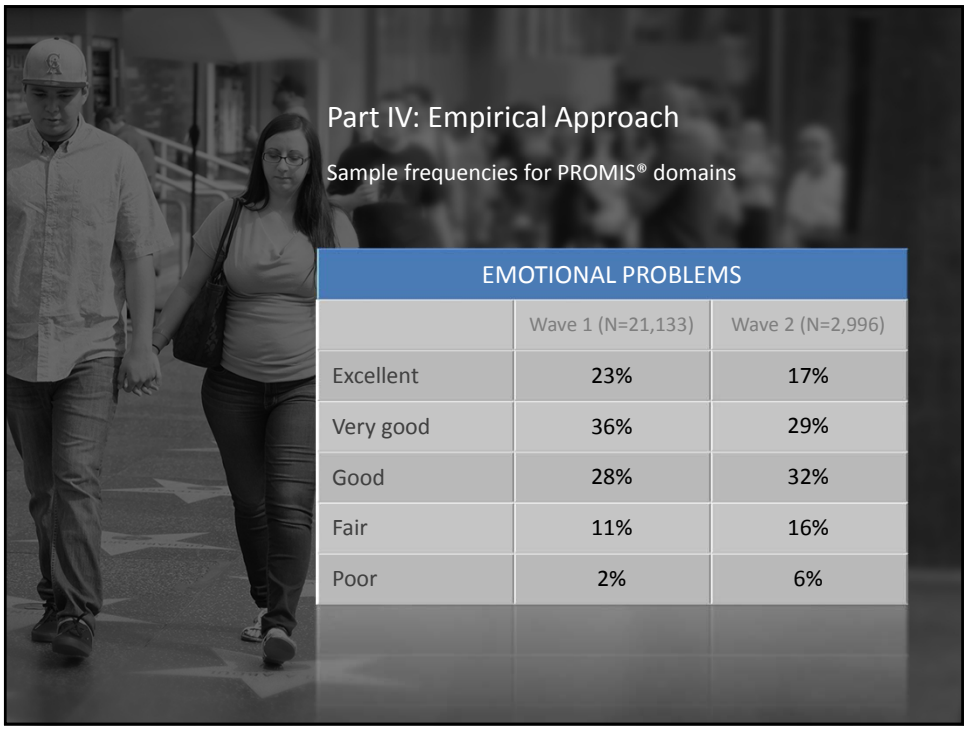
MENTAL HEALTH		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	28%	17%
Very good	35%	31%
Good	24%	29%
Fair	11%	17%
Poor	2%	6%



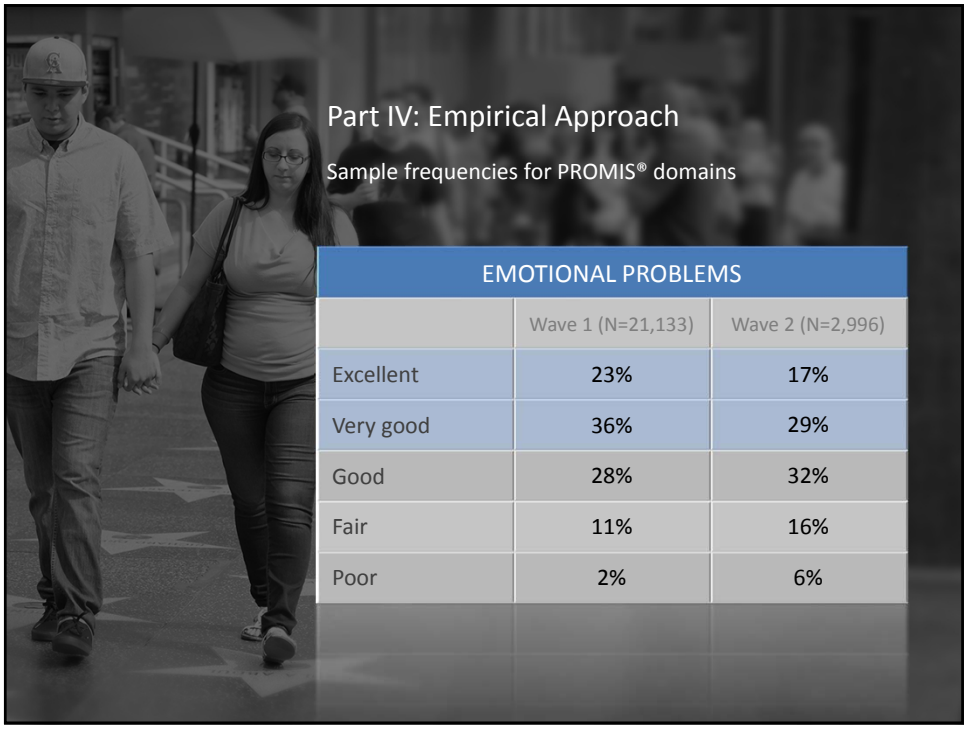
GENERAL HEALTH		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	12%	11%
Very good	33%	31%
Good	34%	33%
Fair	16%	19%
Poor	4%	6%



GENERAL HEALTH		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	12%	11%
Very good	33%	31%
Good	34%	33%
Fair	16%	19%
Poor	4%	6%



EMOTIONAL PROBLEMS		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Excellent	23%	17%
Very good	36%	29%
Good	28%	32%
Fair	11%	16%
Poor	2%	6%



EMOTIONAL PROBLEMS		
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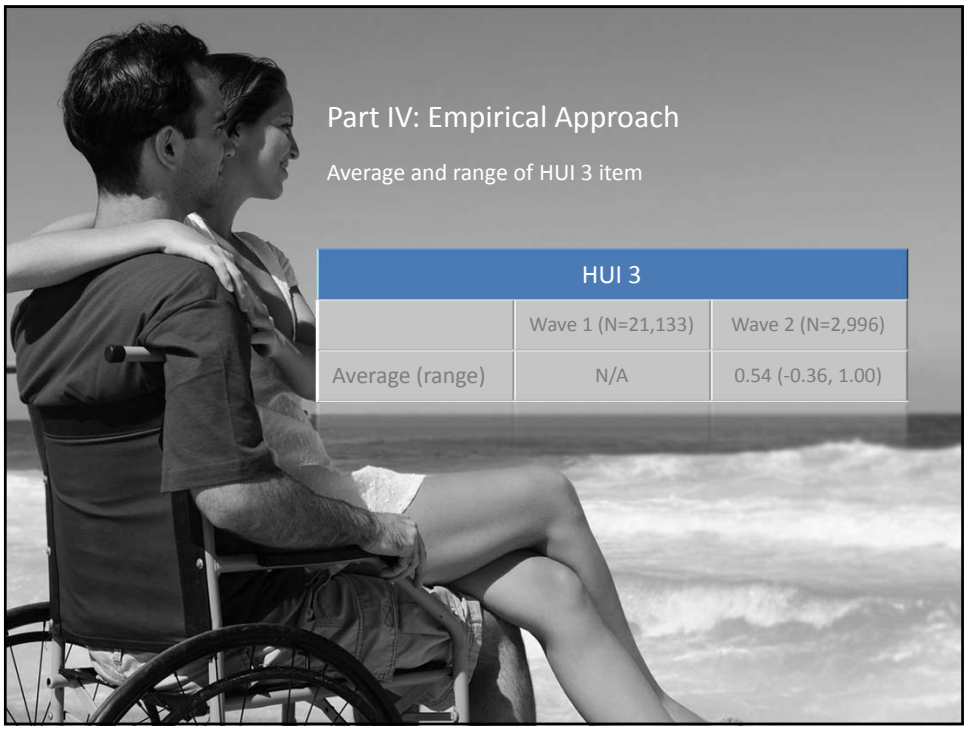
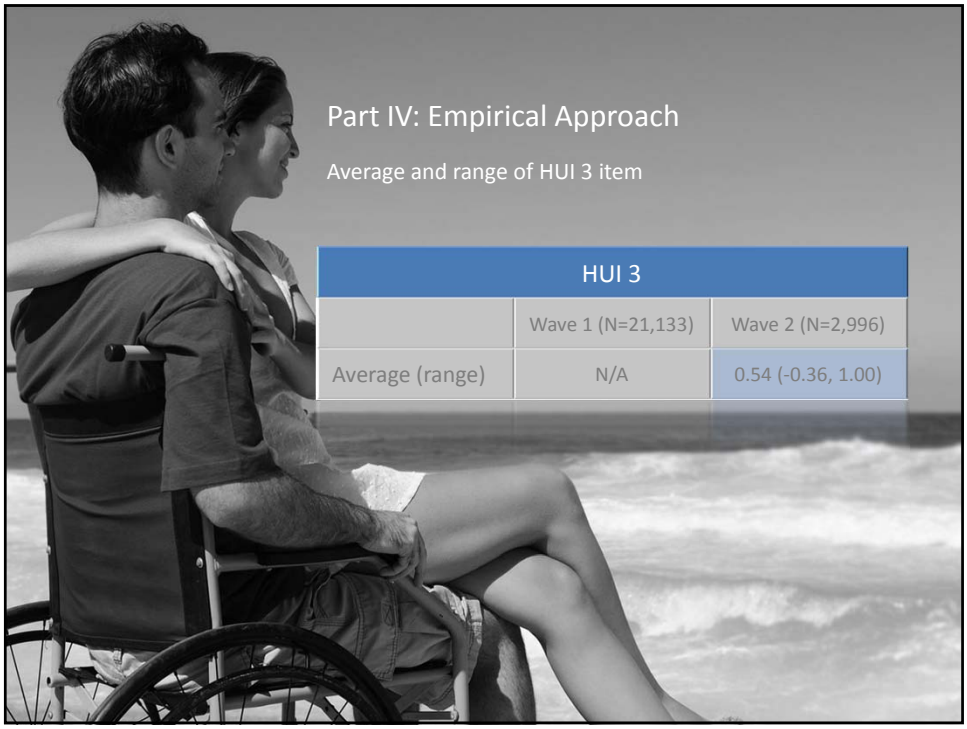


HUI 3		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Average (range)	N/A	0.54 (-0.36, 1.00)



Part IV: Empirical Approach

Average and range of HUI 3 item

HUI 3		
	Wave 1 (N=21,133)	Wave 2 (N=2,996)
Average (range)	N/A	0.54 (-0.36, 1.00)

Regression of Overall Rating of Quality of Life on PROMIS global health and EQ-5D-3L items in PROMIS Wave 1

	Standardized Beta	t-statistic	p-value	Zero order correlation*
Satisfaction with social activities and relationships	0.27	36.34	<0.0001	0.68
Physical health	0.20	16.98	<0.0001	0.70
General health	0.18	15.07	<0.0001	0.69
Mental health	0.17	20.34	<0.0001	0.64
Perform social activities and roles	0.12	14.50	<0.0001	0.67
Usual activities	0.04	5.36	<0.0001	0.50
Physical functioning	0.03	3.19	0.0014	0.50
Pain	0.02	2.69	0.0072	0.44
Emotional problems	0.01	0.90	0.3701	0.48
Self-care	0.01	2.67	0.0077	0.29
Mobility	0.01	-.41	0.6807	0.40
Pain/discomfort	0.00	0.48	0.6298	0.42
Anxiety/depression	0.00	0.19	0.8507	0.46
Fatigue	-0.01	-1.76	0.0789	0.50

** All p's < 0.0001 Note: Adjusted R^2 = 0.69 (n = 13,966)*

Regression of Overall Rating of Quality of Life on PROMIS global health and EQ-5D-3L items in PROMIS Wave 1

	Standardized Beta	t-statistic	p-value	Zero order correlation*
Satisfaction with social activities and relationships	0.27	36.34	<0.0001	0.68
Physical health	0.20	16.98	<0.0001	0.70
General health	0.18	15.07	<0.0001	0.69
Mental health	0.17	20.34	<0.0001	0.64
Perform social activities and roles	0.12	14.50	<0.0001	0.67
Usual activities	0.04	5.36	<0.0001	0.50
Physical functioning	0.03	3.19	0.0014	0.50
Pain	0.02	2.69	0.0072	0.44
Emotional problems	0.01	0.90	0.3701	0.48
Self-care	0.01	2.67	0.0077	0.29
Mobility	0.01	-.41	0.6807	0.40
Pain/discomfort	0.00	0.48	0.6298	0.42
Anxiety/depression	0.00	0.19	0.8507	0.46
Fatigue	-0.01	-1.76	0.0789	0.50

** All p's < 0.0001 Note: Adjusted R^2 = 0.69 (n = 13,966)*

Regression of Overall Rating of Quality of Life on PROMIS global health and HUI3 in PROMIS Wave 2

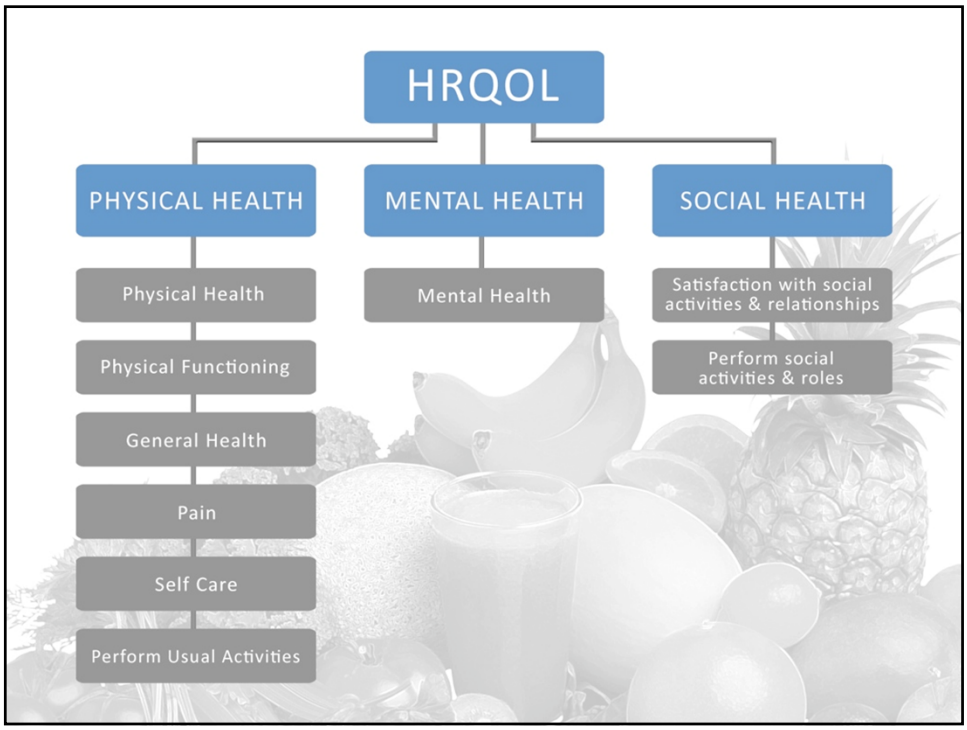
	Standardized Beta	t-statistic	p-value	Zero order correlation*
Physical health	0.39	22.04	<.0001	0.82
General health	0.27	16.45	<.0001	0.79
Mental health	0.11	7.94	<.0001	0.66
Satisfaction with social activities and relationships	0.09	6.01	<.0001	0.64
Perform social activities and roles	0.06	4.37	<.0001	0.62
Physical functioning	0.03	2.58	0.0101	0.56
HUI-3	0.03	2.19	0.0287	0.48
Pain	0.01	0.64	0.5235	0.36
Fatigue	0.01	0.93	0.3504	0.48
Emotional problems	-0.003	-0.33	0.7437	0.39

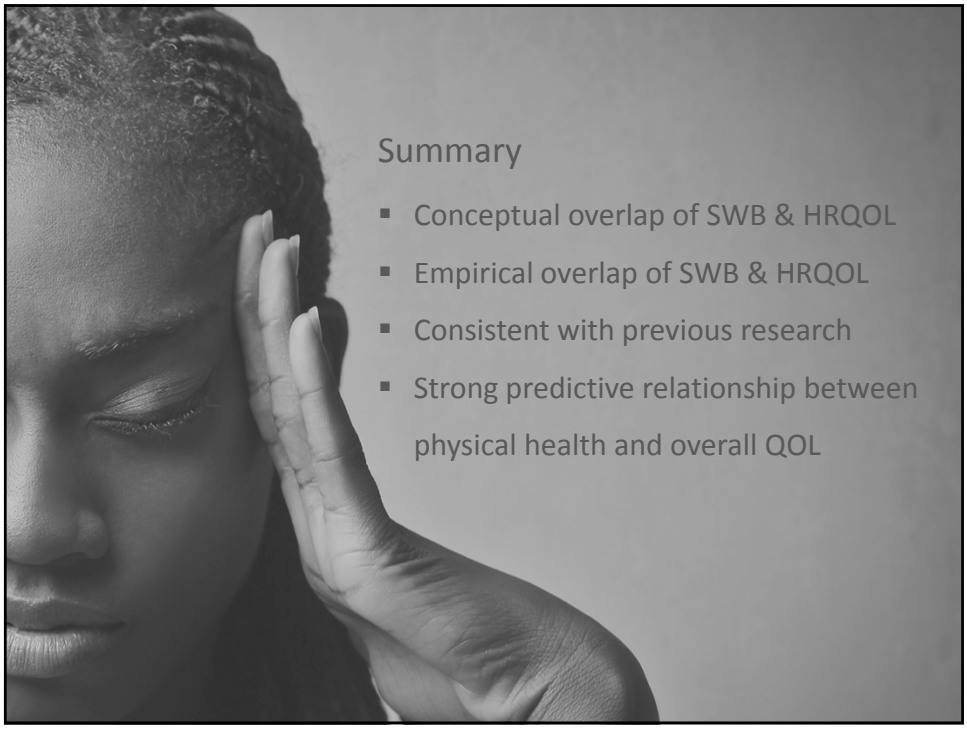
** All p's < 0.0001 Note: Adjusted R^2 = 0.75*

Regression of Overall Rating of Quality of Life on PROMIS global health and HUI3 in PROMIS Wave 2

	Standardized Beta	t-statistic	p-value	Zero order correlation*
Physical health	0.39	22.04	<.0001	0.82
General health	0.27	16.45	<.0001	0.79
Mental health	0.11	7.94	<.0001	0.66
Satisfaction with social activities and relationships	0.09	6.01	<.0001	0.64
Perform social activities and roles	0.06	4.37	<.0001	0.62
Physical functioning	0.03	2.58	0.0101	0.56
HUI-3	0.03	2.19	0.0287	0.48
Pain	0.01	0.64	0.5235	0.36
Fatigue	0.01	0.93	0.3504	0.48
Emotional problems	-0.003	-0.33	0.7437	0.39

** All p's < 0.0001* *Note: Adjusted $R^2 = 0.75$*




Summary
Conceptual overlap of SWB & HRQOL
Empirical overlap of SWB & HRQOL
Consistent with previous research
Strong predictive relationship between physical health and overall QOL


Shortcomings
Only examined Evaluative SWB, not Experienced or Eudaimonic Well-Being
Experienced Well-Being might be better suited for health research
Interventions with outcomes other than increased life-expectancy
Successful treatment not confined to signs and symptoms
Parties other than patients are affected by treatment and symptoms


The way forward
Research the overlap in specific patient populations
Research the Interplay between Evaluative Well-Being and Experienced Well-Being


THE END
(THANK YOU)