Sustainable Improvement

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Sustainable Improvement

- Resiliency – positive adaptation in the context of adversity or risk

- Strengthening Primary Care – new opportunities in rural health care

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Overview – Resiliency

- **Resiliency and burnout**
- **Sources of and threats to resiliency**
- **Applications from positive psychology**
- **Promoting organizational resiliency**
- **Resources**

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Clinician Burnout – A Public Health Crisis?

- Burnout is common among health care workers.

- Until recently, estimates for the prevalence of burnout ranged from 10%–70% among nurses and 30%–50% among physicians, nurse practitioners, and physician assistants.

- In late 2015, a study conducted by the Mayo Clinic, in partnership with the American Medical Association, found that more than half of American physicians now have at least one sign of burnout, a 9% increase from the group's prior results in a study conducted 3 years earlier.

- Investigators postulate that emotionally exhausted clinicians curtail performance to focus on only the most necessary and pressing tasks.

- Clinicians with burnout may also have impaired attention, memory, and executive function that decrease their recall and attention to detail.

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Example burnout measure

"Overall, based on your definition of burnout, how would you rate your level of burnout?"

1 = "I enjoy my work. I have no symptoms of burnout;"

2 = "Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out;"

3 = "I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion;"

4 = "The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot;" and

5 = "I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help."

Health Care Trends

- "Jaw dropping" progress in the past 20 years for Medicare, age 65+:
    - All cause mortality down
    - Hospitalization rates down
    - Overall health care costs down

- However, physician and other health care workers burnout increasing

Group	Burnout	Depression	Suicidal ideation
Physicians	**37.5%**	40.4%	6.9%
Employed controls	**27.6%**	41.1%	6.6%

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Hospital Worker Safety Trends – US Lost-time injuries
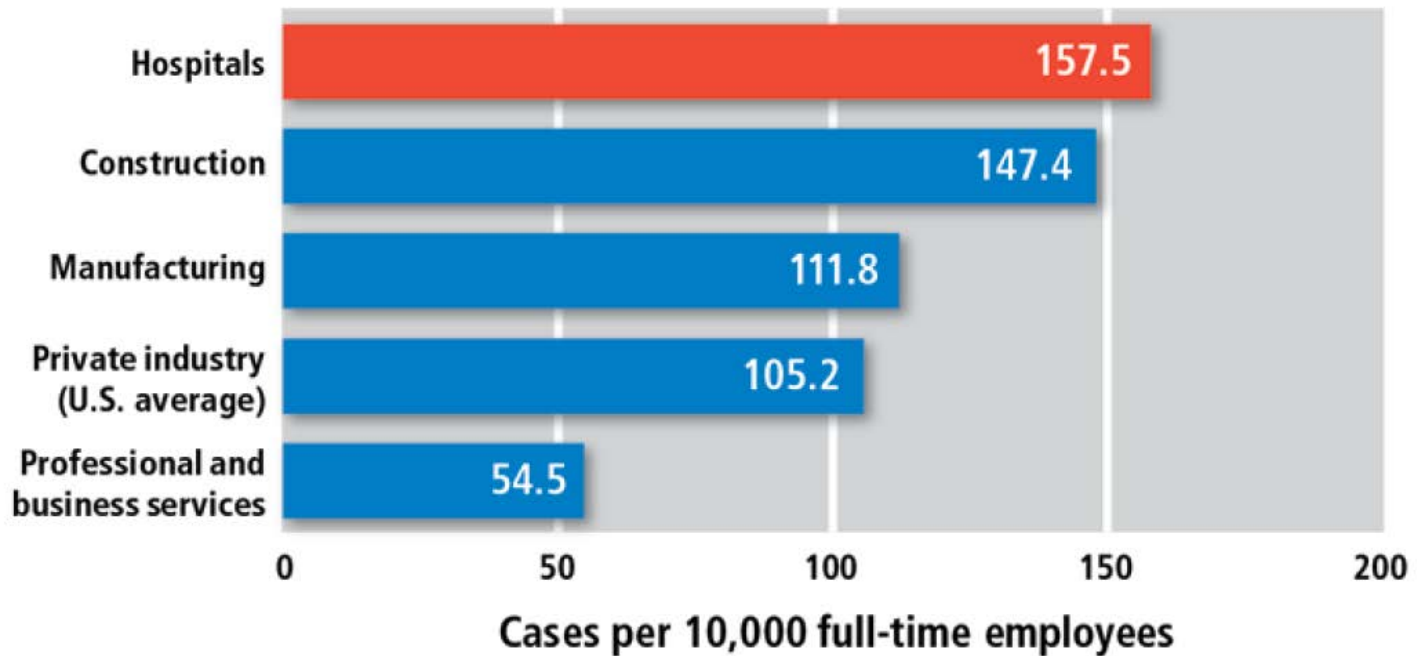
Data source: Bureau of Labor Statistics

What are you seeing?

Are you concerned about burnout among health care providers?

Are you concerned about your own well-being associated with your role as a health care provider?

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Perspectives

- Mathematics

- Public health

- Patient safety and human factors

- Applied positive psychology

- Quality improvement, systems

- Organizational safety

Public Health

"Airs, waters, and places" – look to environment and circumstances for causes of poor health outcomes

Public Health

"Airs, waters, and places" – look to environment and circumstances for causes of poor health outcomes

Work Environment

Burnout

Work environment strategies:
- Quality improvement
- Human factors work design
- Employee engagement
- Patient and family engagement
- Teamwork and communications
- Just culture

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A recent study

Predicting heart disease at the county level in the United States.

County level heart disease mortality predictors

Survey and census data

- Smoking
- Obesity
- Income and education
- Diabetes
- Hypertension
- Married
- Black
- Hispanic
- Female

Choose top three predictors

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County level heart disease mortality predictors

Survey and census data

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Top three predictors

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All of these factors combined predicted county-level heart disease mortality; $r = 0.36$

County level heart disease mortality predictors

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Consider:

Psychologic language on Twitter – a scale that captures negative and positive factors

Which is a better predictor – Twitter or the other factors?

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Twitter language alone was a better than all other predictors combined! *r* = 0.42.

Adding the other predictors did not improve on Twitter language alone.

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Psychological Language on Twitter Predicts County-Level Heart Disease Mortality
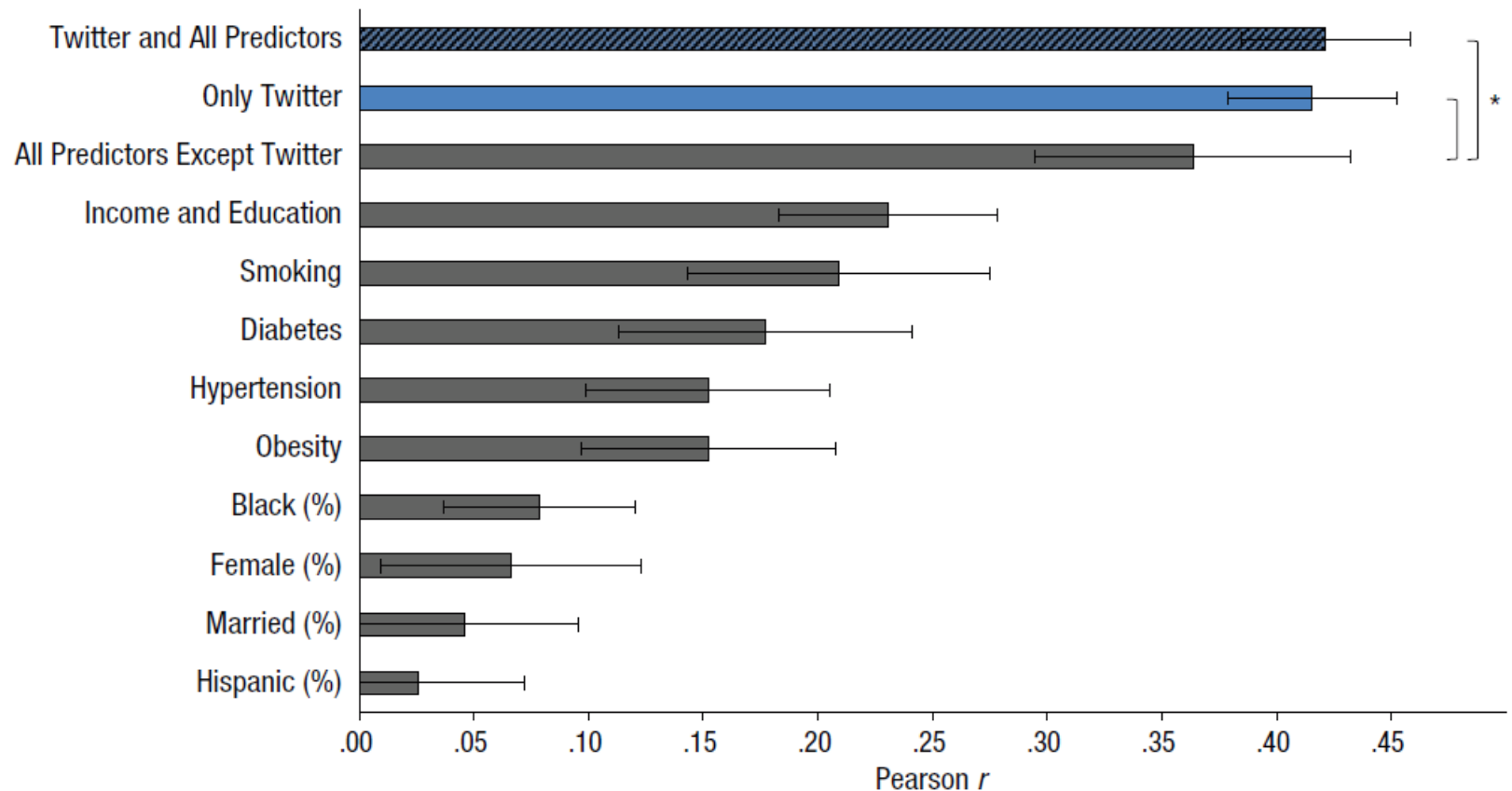

Fig. 2. Performance of models predicting age-adjusted mortality from atherosclerotic heart disease (AHD). For each model, the graph shows the correlation between predicted mortality and actual mortality reported by the Centers for Disease Control and Prevention. Predictions were based on Twitter language, socioeconomic status, health, and demographic variables singly and in combination. Higher values mean better prediction. The correlation values are averages obtained in a cross-validation process used to avoid distortion of accuracy due to chance (overfitting; for details, see the text). Error bars show 95% confidence intervals. Asterisks indicate significant differences between models (*p < .05).

County level heart disease mortality predictors

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Continually updating models of chronic disease and threats to well-being.

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Assertion

To reduce burnout in health care,

employ more optimists.

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On employing optimists …

Buy or build?

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Patient Safety and Human Factors

- 20 years ago, started working in patient safety

- Study accident causation, injury prevention, and human factors

- Gained an appreciation for the critical role of attention and expectation in defining the reality that we experience

On employing optimists …

Buy and build!

Positive psychology exercises

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Mechanisms (include)

- **Focus attention**
  - **Notice and savor the positive**
  - **Mindful awareness: reduce toxic rumination**
- **Explanatory style for negative and positive life events**
  - **Permanence**
  - **Pervasiveness**
  - **Personalized**

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Gratitude Letter Activity

Think of someone who has done something amazing for you, this person can be alive or no longer with us. This person contributed to your well-being in a big way. Spend the next few minutes writing a brief note, telling this person what they did, how it impacted you, and the benefits you have received. Be genuine, kind and appreciative in your note.

Gratitude Visit

If that person is still with us, arrange to visit them and read the letter to them.
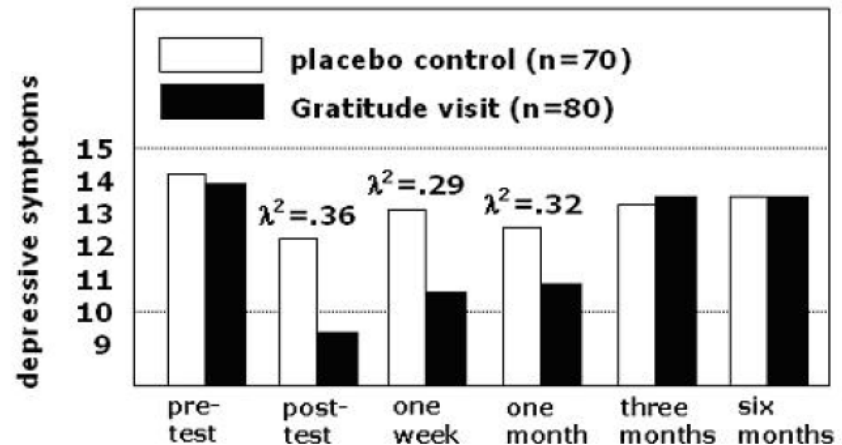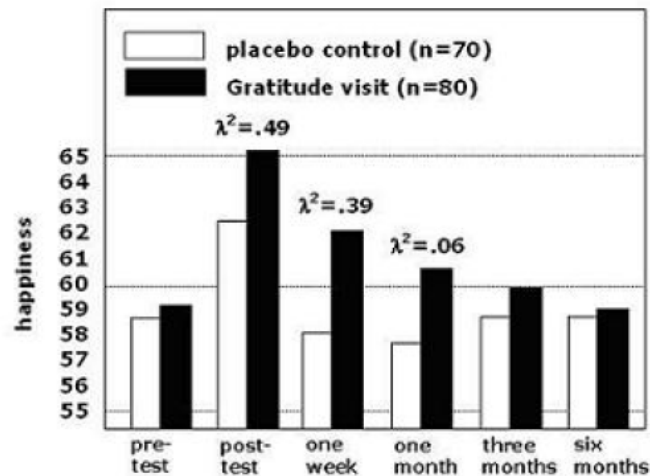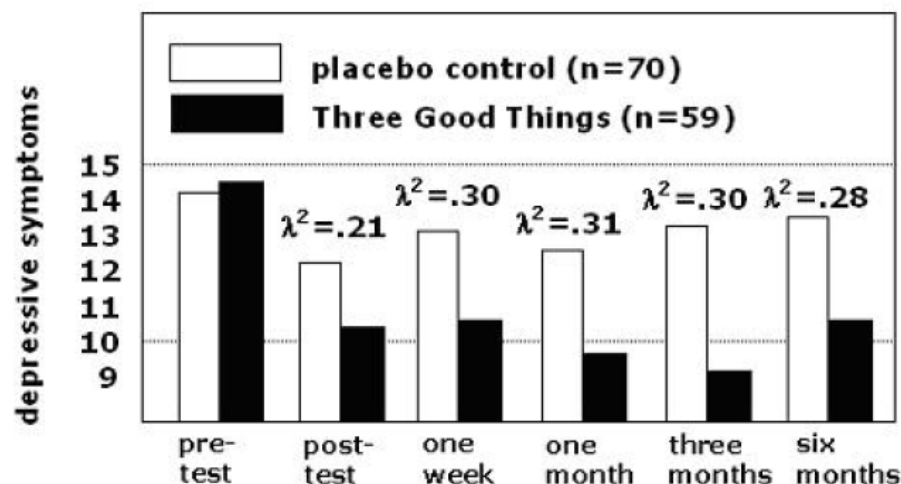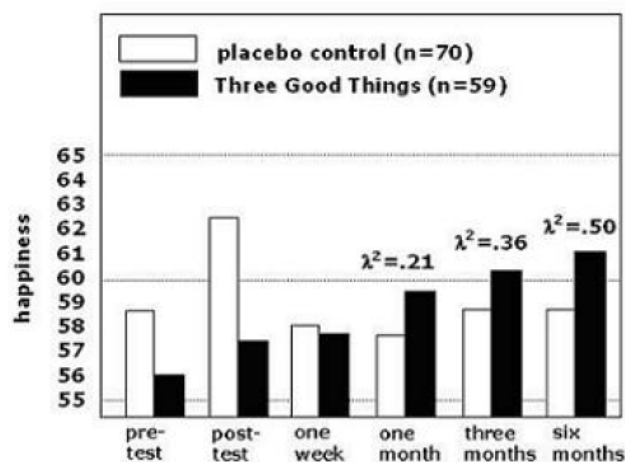
Resiliency Toolkit

All evidence-based practices

- Gratitude Journal

- Signature Strengths

- Optimism Building

- Gratitude Letter/Visit

- Altruism

- Resiliency (Physical Activity)

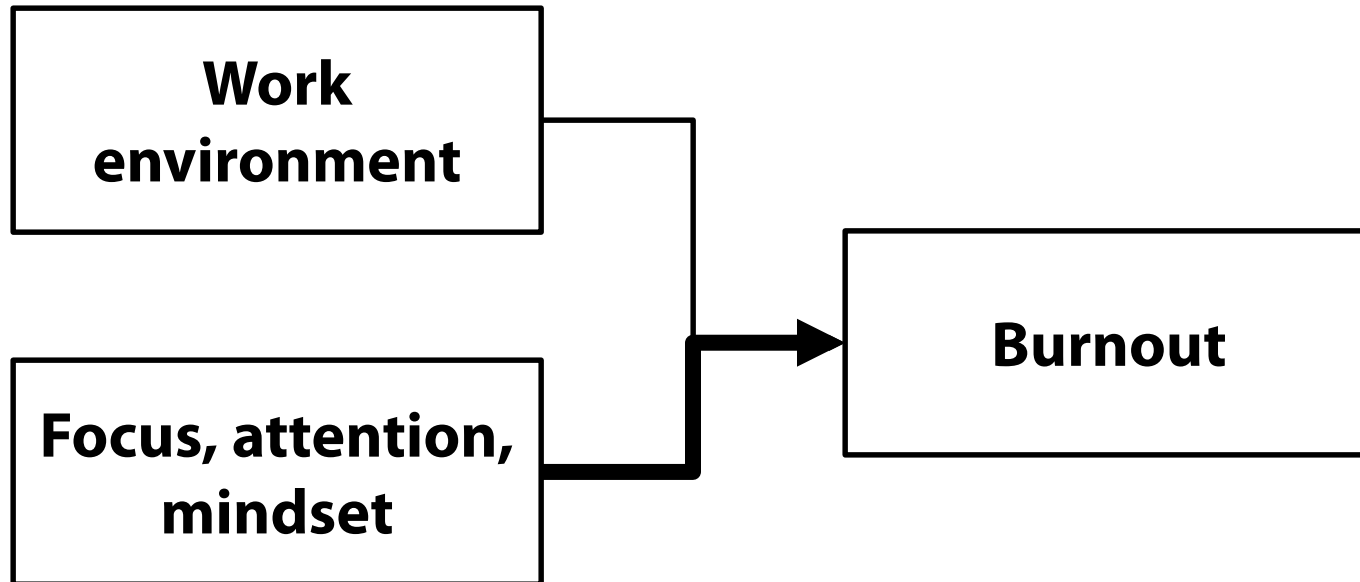HealthInsight

Three Good Things (Gratitude Journal)

See also: Duke Patient Safety Center

http://www.dukepatientsafetycenter.com/

Next cohort: November, 2017

HealthInsight Change Agents

Pathways

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┌─────────────────┐
│      Work       │
│   environment   │──────┐
└─────────────────┘      │        ┌──────────────┐
                         ├───────▶│   Burnout    │
┌─────────────────┐      │        └──────────────┘
│ Focus, attention,│─────┘
│     mindset      │
└─────────────────┘
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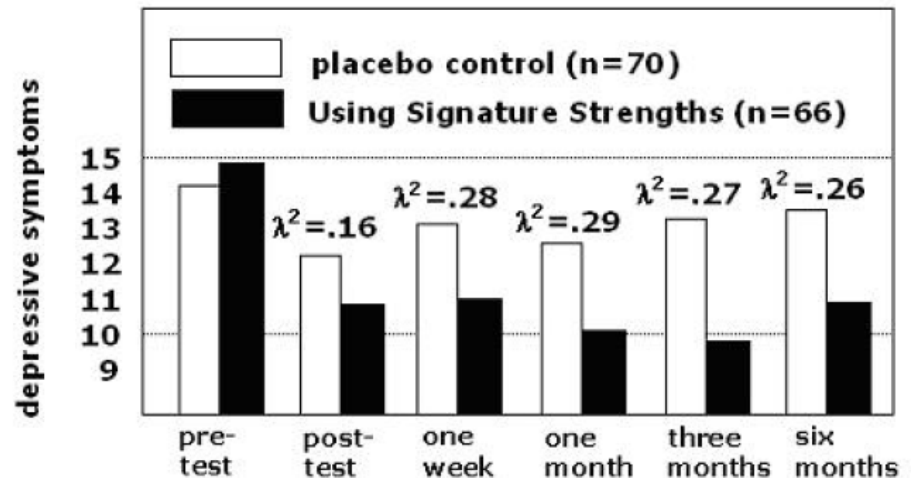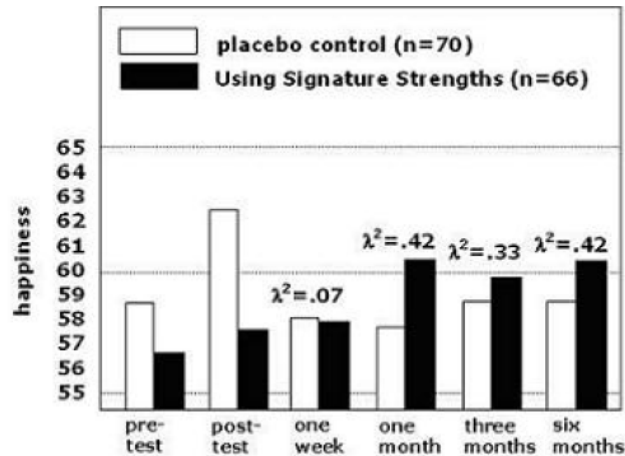
Promoting Organizational Resiliency

- **As burnout increases, it will become the rate limiting factor for progress in health care quality and safety**

- **Improvement campaigns may further stress delivery systems**

- **Worker safety lags improvement in other industries**

- **Consider participatory design and management approaches**

Signature Strengths

See also: **Self-affirmation alters the brain's response to health messages and subsequent behavior change.**

"... findings suggest that affirmation of core values may exert its effects by allowing at-risk individuals to see the self-relevance and value in otherwise-threatening messages."

Applications? Your Experience

- You may already be using these or similar tools?

- Do you see applications – with others in your clinic, patients, caregivers, yourself, your family, …?

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Do you experience joy at work?

- You can give yourself a better job

- My new job description:
  - Changing the world
  - Helping others achieve their full potential
  - Learning in a changing environment

- You can increase your own resiliency

- You can invite others to give themselves a better job

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Sustainable Improvement

- Resiliency – positive adaptation in the context of adversity or risk

- Strengthening Primary Care – new opportunities in rural health care

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Relative Value of Primary Care

"Evidence of the health-promoting influence of primary care has been accumulating …
- *primary care helps prevent illness and death*
- *associated with a more equitable distribution of health in populations" (2005)*

" … strengthening primary care will improve health outcomes and restrain the growth of health care spending." (2010)

"In recent years, we have been engaged in an ongoing incremental effort to update and improve the relative value of primary care, care management/ coordination, and cognitive services …" (2016)

Primary Care – Opportunities

- Alternate payment models, shared savings, accountable care

- Advanced primary care services (include)
  - Wellness and prevention; Annual Wellness Visits
  - Chronic Care Management
  - Transitional Care Management

- Behavioralhealth integration

Alternate Payment Models

- Primary care is key to reducing unnecessary and avoidable hospitalizations and cost

- Alternate payment models may provide flexibility in the use of primary care and care management resources

Advanced Primary Care

Service	RHC Payment Notes	Care Delivery Notes
"Welcome to Medicare" Initial Preventive Physical Examination (IPPE)	All-inclusive rate. No co-pay. Eligible for same-day billing.	Potentially significant role for clinical staff. Opportunity to enroll in CCM.
Annual Wellness Visit (AWV)	All-inclusive rate. No co-pay. Not currently eligible for same-day billing.	Potentially significant role for clinical staff. Opportunity to enroll in CCM.
Chronic Care Management (CCM) and General Behavioral Health Integration (BHI)	2016-17; 20 minutes per month billable Proposed for 2018 – general care management code (GCCC1); about $60 per month. Co-pay applies	Clinical staff directed by RHC practitioner – time may be counted for this service.
Transitional Care Management (TCM)	All-inclusive rate.	Includes services provided by clinical staff incident to TCM under general supervision of RHC practitioner.

Behavioral Health Integration

Service	RHC Payment Notes	Care Delivery Notes
Psychiatric Collaborative Care Model (Psychiatric CoCM)	Proposed for 2018 – new code, payment for RHCs (GCCC2); about $134 Co-pay applies	Defined model, similar to non-rural providers. Directed by RHC practitioner; requires behavioral health care manager; requires psychiatric consultant.

Expect continued expansion of telemedicine.

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Applications? Your Experience

- You may already be using these or similar tools?

- Do you see applications – with others in your clinic, patients, caregivers, yourself, your family, …?

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References and Resources

- Seligman, MEP. *Flourish: A visionary new understanding of happiness and well being.* New York: Atria; 2011.

- Lopez SJ & Snyder CR (Eds.) *The Oxford handbook of positive psychology, 2nd Edition.* New York: Oxford University Press; 2009.

- University of Pennsylvania, Authentic Happiness website - resources (www.authentichappiness.sas.upenn.edu)

- Sood, A. *The Mayo Clinic Guide to Stress-Free Living.* Boston, MA: Da Capo Press; 2013.

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References and Resources

- Eichstaedt, Johannes C., et al. "Psychological language on Twitter predicts county-level heart disease mortality." *Psychological science* 26.2 (2015): 159-169.

- Falk, Emily B., et al. "Self-affirmation alters the brain's response to health messages and subsequent behavior change." *Proceedings of the National Academy of Sciences* 112.7 (2015): 1977-1982.

- Seligman, Martin EP, et al. "Positive psychology progress: empirical validation of interventions." *American psychologist* 60.5 (2005): 410.

- Bolier, Linda, et al. "Positive psychology interventions: a meta-analysis of randomized controlled studies." *BMC public health* 13.1 (2013): 119.

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