Expanding on the Science of Healthy Aging

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Director, Penn State Center for Healthy Aging
Healthy Aging Lecture Series Partners

- Center for Healthy Aging
- Foxdale Village
- OLLI
- Mount Nittany Medical Center
- The Village at Penn State
- Home Instead Senior Care
“The Silver Tsunami”
Number of 65+ in the US (millions)

In 10-20 years...
• 1 in 5 people will be 65+

By 2050...
• 1 in 3 people will be 65+

If you reach age 65...
• Expect to live 19+ years
The Epidemiology of Healthy Aging

**Lifespan**: the average length of life in years

Lifespan is about living longer...

**Healthspan**: the period (in years) of one’s life that is generally healthy

Healthspan is about living better!
Lifespan vs. Healthspan

Living healthier, not just longer

Age-related Diseases
Onset of morbidity (chronic conditions)

Age

60
75

Death
Life Extension (↑ lifespan)

Lifespan vs. Healthspan

Living healthier, not just longer

Longer life,
But more “sick” years

Age
Lifespan vs. Healthspan
Living healthier, not just longer

More healthy years,
Fewer sick years

Compression of
Morbidity
(↑ healthspan)

Age
Longevity is not enough...

- Physical
- Emotional
- Social
- Cognitive

Healthy Aging

- Resilience
- Sense of purpose
- Social connectedness
- Independence
Pitfalls: “What goes wrong” (risk factors)  Things that threaten our capacity for healthy aging

Pathways: “What goes right” (protective factors)  Things that promote our capacity for healthy aging

Eat smart!
Be active!
Stay engaged!
An Ounce of Prevention is Worth a Pound of Cure

- Benjamin Franklin -
Three Levels of Prevention

**Primary Prevention:** BEFORE you get the disease

**Secondary Prevention:** After the disease or serious risk factor, but **BEFORE** any symptoms

**Tertiary Prevention:** Manage long-term health problems to maximize quality of life
Threats to our Quality of Life

What do you expect when you are ‘old’? (65+)

1. Trouble paying bills
2. Being a burden
3. Not being able to drive
4. A serious illness
5. Memory loss
6. Not sexually active
7. Feeling sad/depressed
8. Not feeling needed
9. Loneliness

1. Memory loss (57%)
2. Not being able to drive (45%)
3. Serious Illness (42%)
4. Not sexually active (34%)
### Targets for Dementia Prevention Efforts: Modifiable Risk and Protective Factors

#### Midlife (30s-60s)

<table>
<thead>
<tr>
<th>Risk Factors</th>
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</thead>
<tbody>
<tr>
<td>• BMI</td>
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<tr>
<td>• High Cholesterol</td>
</tr>
<tr>
<td>• Smoking</td>
</tr>
<tr>
<td>• TBI</td>
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<tr>
<td>• Pesticide exposure</td>
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#### Seniors (65+)

<table>
<thead>
<tr>
<th>Protective Factors</th>
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</thead>
<tbody>
<tr>
<td>• Physical Activity</td>
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<tr>
<td>• Cognitive Activity</td>
</tr>
<tr>
<td>• Social Engagement</td>
</tr>
<tr>
<td>• Moderate Alcohol</td>
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<tr>
<td>• Fish consumption</td>
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</tbody>
</table>

Source: Anstey et al. (2012) *Prevention Science*
The Importance of Lifestyle

50% of dementia worldwide due to modifiable (preventable) causes

Physical Inactivity contributes to largest proportion of dementia in U.S.


Engaged Lifestyles

Social aspect to these activities

Driving Safety

Crashes per 1000 Licensed Drivers

Crash rate increases in drivers 60+ (uptick after age 80)
Crash rates still higher in 20-24 year old vs. 70-74 year old drivers

What does this mean?

Mature Drivers...

Smaller % of all crashes
Drive less ➞ reduce risk

↑ Crash rate per mile
↑ Fatality rate per mile

This means...

Mature drivers present a lower risk to others...
But experience increasing personal risk of crash
What can we do about this?

“Brain Training” can increase a person’s Useful Field of View (UFOV)

**Benefits**

– Safer driving
– Maintained driving
– Better Health, lower health costs
– Reduced Risk for Depression
Concluding remarks

• 65+ is the fastest growing part of society

• Healthy Aging is about…
  – Increasing Healthspan, not just lifespan
  – Prevention is key

• Preserve Cognitive Health
  – Be active (or not sedentary)
  – Stay socially and mentally engaged

• Driver Safety
  – Crash risk increases as we age
  – May be ways to improve safety/maintain independence
Thursday, April 17, 2014, 10:30 a.m.

“I Love Crossword Puzzles!”
Brain Health and You

What can we do to keep our brains healthy as we age? Are certain activities more stimulating for our brains? Are there things we should avoid? Learn what you can do to keep your brain functioning at higher levels.

Presented by Ann Kolanowski, Professor of the College of Nursing and Director of the Hartford Center for Nursing Excellence in the College of Nursing

Foxdale Village Auditorium
500 E. Marylyn Avenue
State College, PA
Thursday, August 7, 2014, 10:30 a.m.

“Talk or Text? Communication Strategies As We Age”

Do we communicate differently at different ages? How do we communicate across generations? Learn how to achieve a higher quality of life as you age, through relationship engagement and enhanced communication.

Presented by Jon Nussbaum, Professor of Communication Arts and Sciences, and of Human Development and Family Studies

Ruth Pike Auditorium
22 Biobehavioral Health Building
Penn State University Park, PA
State College, PA
Tuesday, October 28, 2014, 6:00 p.m.

The Speedometer of Life: Daily Stress, Health, and Well-Being

How do your daily experiences influence your health? Do minor stressors make you irritable or depressed, or do you bounce back easily? Learn about how daily stress can accumulate over time and across different situations to affect not only your health but also the health of your family.

Presented by David Almeida, Professor of Human Development and Family Studies

Dreibelbis Auditorium
Mount Nittany Medical Center
1800 E. Park Avenue
State College, PA