LET’S CLOSE THE GAP!

Between What We Know And What We Do To Prevent Mental, Emotional, Behavioral Problems
Disclosures Statement

- Employed by University of Colorado and this includes being an advisor to the Farley Center.
- No commercial relationships to report.
- UPSTREAM! Together is supported by the Colorado Health Foundation, the CU department of family medicine, Farley Center, and volunteers.
- Serve on a number of non-profit boards and work with multiple professional organizations—not speaking for any of them.
University of Colorado Denver
Anschutz Medical Center
Our Goal Today

Support the conference objectives of having people leave the conference with ideas about what you can do locally and at a policy level *now* to implement and spread vigorous efforts to prevent mental, emotional, and behavioral problems, taking a perspective beyond particular diseases and programs.
Our Goal Going Forward

To prevent mental, emotional, and behavioral problems in our communities to “Help young people arrive at adulthood with the skills, interests, assets, and health habits needed to live healthy, happy and productive lives in caring relationships with others.”
What We Will Do

- Characterize some history, costs and effects of our healthcare system—establish some shared context.

- Remember why prevention of MEB problems matters so much—via a personal story.

- Share an approach being tried out in Colorado-UPSTREAM! *Together, “forming communities of solution.”*

- Table talk and sharing about four questions.

- Questions and whole group discussion—wrap up.
Health Care Expenses

HEALTH, EDUCATION, AND DEFENSE SHARES OF U.S. GDP, 1955 - 2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Health</th>
<th>Education</th>
<th>Defense</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955</td>
<td>4.3%</td>
<td>3.8%</td>
<td>9.7%</td>
</tr>
<tr>
<td>1960</td>
<td>5.1%</td>
<td>5.1%</td>
<td>9.1%</td>
</tr>
<tr>
<td>1965</td>
<td>5.6%</td>
<td>6.1%</td>
<td>6.8%</td>
</tr>
<tr>
<td>1970</td>
<td>7.0%</td>
<td>7.3%</td>
<td>7.7%</td>
</tr>
<tr>
<td>1975</td>
<td>8.1%</td>
<td>7.2%</td>
<td>5.2%</td>
</tr>
<tr>
<td>1980</td>
<td>8.8%</td>
<td>6.6%</td>
<td>4.7%</td>
</tr>
<tr>
<td>1985</td>
<td>10.1%</td>
<td>6.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>1990</td>
<td>12.0%</td>
<td>7.1%</td>
<td>5.0%</td>
</tr>
<tr>
<td>1995</td>
<td>13.4%</td>
<td>7.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td>2000</td>
<td>13.2%</td>
<td>7.5%</td>
<td>2.9%</td>
</tr>
<tr>
<td>2005</td>
<td>15.5%</td>
<td>7.9%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>
Health Care Spending, Per Capita

Average Health Care Spending per Capita, 1980–2009
Adjusted for differences in cost of living

Dollars

Source: OECD Health Data 2011 (June 2011).

The Commonwealth Fund
2004 US Health Expenditures

- Total: $1,877,600,000,000
- Hospital Care: 570,800,000,000
- Physician and Clinical Services: 399,900,000,000
- Dental Services: 81,500,000,000
- Nursing Home Care: 115,200,000,000
- Home Care: 43,200,000,000
- Prescription Drugs: 188,500,000,000
- Admin/Net Cost of Insurance: 136,700,000,000
- Gov’t Public Health Activities: 56,100,000,000

(Source: Smith C et al, Health Affairs 2006;25:186-196)
Unadjusted Expenditures 2004 vs. 1970:

- 25x’s expenditures for personal health care - 18x’s per capita expenditures
- 21x’s for hospital care
- 29x’s for physician services
- 34x’s for prescription drugs
- 49x’s for insurance admin and net cost
- (GDP increased 11x’s and population grew 42%)
How long ago is a trillion seconds???
2015 US Health Expenditures

- Total: $3,205,600,000,000
- Hospital Care: $1,036,100,000,000
- Physician/Clinical Services: $634,900,000,000
- Dental Services: $117,500,000,000
- Nursing Homes: $156,800,000,000
- Home Care: $88,800,000,000
- Prescription Drugs: $324,600,000,000
- Admin/Net cost of Insurance: $210,100,000,000
- Gov’t Public Health Activities: $80,900,000,000

(source: Martin AB et al, Health Affairs 2017;35:166-176)
CIA: GDP (Purchasing Power Parity)-2016 Estimate

- China $21,270,000,000,000
- European Union $19,180,000,000,000
- United States $18,560,000,000,000
- India $8,721,000,000,000
- Japan $4,932,000,000,000
- Germany $3,979,000,000,000
- Russia $3,745,000,000,000
- "US wHealthcare" $3,205,600,000,000
- Brazil $3,135,000,000,000
- Indonesia $3,135,000,000,000
- United Kingdom $2,788,000,000,000

## Health and Cost Impact of Comorbidity & Integrated Care

<table>
<thead>
<tr>
<th>Patient Groups</th>
<th>Annual Cost of Care</th>
<th>Illness Prevalence</th>
<th>% with Comorbid Mental Condition*</th>
<th>Annual Cost with Mental Condition</th>
<th>% Increase with Mental Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Insured</td>
<td>$2,920</td>
<td></td>
<td>15%</td>
<td>$10,710</td>
<td>94%</td>
</tr>
<tr>
<td>Arthritis</td>
<td>$5,220</td>
<td>6.6%</td>
<td>36%</td>
<td>$10,030</td>
<td>169%</td>
</tr>
<tr>
<td>Asthma</td>
<td>$3,730</td>
<td>5.9%</td>
<td>35%</td>
<td>$10,030</td>
<td>169%</td>
</tr>
<tr>
<td>Cancer</td>
<td>$11,650</td>
<td>4.3%</td>
<td>37%</td>
<td>$18,870</td>
<td>62%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>$5,480</td>
<td>8.9%</td>
<td>30%</td>
<td>$12,280</td>
<td>124%</td>
</tr>
<tr>
<td>CHF</td>
<td>$9,770</td>
<td>1.3%</td>
<td>40%</td>
<td>$17,200</td>
<td>76%</td>
</tr>
<tr>
<td>Migraine</td>
<td>$4,340</td>
<td>8.2%</td>
<td>43%</td>
<td>$10,810</td>
<td>149%</td>
</tr>
<tr>
<td>COPD</td>
<td>$3,840</td>
<td>8.2%</td>
<td>38%</td>
<td>$10,980</td>
<td>186%</td>
</tr>
</tbody>
</table>

*Approximately 10% receive evidence-based mental condition treatment

Cartesian Solutions, Inc.™--consolidated health plan claims data
Updated Projections
Young and DeVoe, AnnFamMed 2012
Eventually, however, even the mighty American health sector **WILL** succumb to Herbert Stein’s Law, to wit:

If a trend cannot possibly persist, it won’t.
National Health Reform:

Theodore M. Brown
Professor of History, Community and Preventive Medicine, and Medical Humanities at the University of Rochester

July 20, 2011
Oscar Ewing (right) presents the Truman Administration’s National Health Bill at the 1949 Convention of the American Federation of Labor.
This Is a BIG FIGHT... Life and Health Are at Stake

A 1951 fund-raising appeal logo and image used by William Green, president of AFL and honorary Vice-Chair, Committee for the Nation's Health. "We of the AFL pledged ourselves to a continued fight for national health insurance, disability insurance, and federal aid to train more doctors and strengthen local public health departments."
RONALD REAGAN speaks out against SOCIALIZED MEDICINE
ARE YOU NUTS?! GOVERNMENT HEALTH CARE WOULD CREATE A HUGE BUREAUCRACY!
"We're going to completely revamp the U.S. healthcare system..."

"We're going to change the healthcare system..."

"We're going to tweak healthcare..."

"Band-aid anyone?"
Life Expectancy at Birth in 21 High-Income Countries, 1980-2006

Males

Females

Explaining Divergent Levels of Longevity in High-Income Countries
Probability of Survival to Age 50 in 21 High-Income Countries, 1980-2006

Males

Females
Mortality from Non-Communicable Diseases (NCD), 2008

- Japan: 273
- Switzerland: 323
- Australia: 330
- France: 336
- Italy: 342
- Canada: 346
- Spain: 351
- Sweden: 358
- Norway: 363
- Austria: 373
- Netherlands: 377
- Finland: 377
- Portugal: 394
- Germany: 394
- United Kingdom: 401
- United States: 418
- Denmark: 440

Age-Standardized Deaths per 100,000 People
Mortality from Communicable (Infectious) Diseases, 2008

Age-Standardized Deaths per 100,000 People

- Finland: 11
- Austria: 14
- Italy: 16
- Switzerland: 17
- Australia: 18
- Sweden: 20
- Germany: 21
- France: 23
- Canada: 23
- Spain: 24
- Norway: 27
- Denmark: 27
- Netherlands: 28
- United States: 34
- United Kingdom: 36
- Japan: 40
- Portugal: 46
Mortality from Injuries

<table>
<thead>
<tr>
<th>Country</th>
<th>Age-Standardized Deaths per 100,000 People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>22</td>
</tr>
<tr>
<td>Spain</td>
<td>23</td>
</tr>
<tr>
<td>Italy</td>
<td>25</td>
</tr>
<tr>
<td>Germany</td>
<td>25</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>25</td>
</tr>
<tr>
<td>Portugal</td>
<td>28</td>
</tr>
<tr>
<td>Australia</td>
<td>30</td>
</tr>
<tr>
<td>Switzerland</td>
<td>30</td>
</tr>
<tr>
<td>Canada</td>
<td>32</td>
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<tr>
<td>Sweden</td>
<td>32</td>
</tr>
<tr>
<td>Denmark</td>
<td>33</td>
</tr>
<tr>
<td>Austria</td>
<td>34</td>
</tr>
<tr>
<td>Norway</td>
<td>36</td>
</tr>
<tr>
<td>Japan</td>
<td>36</td>
</tr>
<tr>
<td>France</td>
<td>38</td>
</tr>
<tr>
<td>United States</td>
<td>53</td>
</tr>
<tr>
<td>Finland</td>
<td>58</td>
</tr>
</tbody>
</table>
The U.S. health disadvantage spans many types of illness and injury. When compared with the average of peer countries, Americans as a group fare worse in at least nine health areas:

1. infant mortality and low birth weight
2. injuries and homicides
3. adolescent pregnancy and STD’s
4. HIV and AIDS
5. drug-related deaths
6. obesity and diabetes
7. heart disease
8. chronic lung disease
9. disability
Social Factors

- The US has the highest level of income inequality among peer countries, 4th highest in the OECD.
- Since the 1980s, the US has had the highest relative poverty rates among peer countries.
- Since the mid-1980s, the US has had the highest rate of child poverty among peer countries.
- As of 2008, 22% of US children lived in poverty, the 5th highest rate among 34 OECD countries.
• US preschool enrollment is lower than in most high-income countries.

• Among adults of all ages, the US ranks well in educational attainment, but other countries (including emerging economies) are outpacing the US in the educational attainment of young people (e.g., graduation rates).

• US grade school students score above average, but by age 15 US students have average or below-average scores on math, science, and reading.
“...Better brace yourselves for a whole lotta ugly comin’ at you, from a never ending parade of stupid!”

Queen Latifah (a/k/a Motormouth Maybelle, Hostess of “Negro Day,” in Hairspray)
View #4:

“If the world were rational, men would ride side-saddle.”

Author Rita Mae Brown
It may be our time again

“Medicine is always the child of its time and cannot escape being influenced and shaped by contemporary ideas and social trends.”

Gayle Stephens, MD
JEREMY
The Situation with Mental, Emotional, and Behavioral Problems

- They are prevalent
- Most have roots in childhood
- A top priority for communities
- There is no such thing as mental health and physical health separated from each other
- Multiple things combine to cause MEB problems
- Like cancer and heart disease, MEB problems beset people of all ages, races, and backgrounds
- Like some cancers and heart diseases, some MEB problems can be prevented!!
Four Core Principles for Preventing MEB Problems

- Shift thinking from diseases to:
  
  *What will be good for young people 5, 10, or more years from now?*

- The brain, like the heart, is an inseparable part of every person.

- It takes a village.

- The brain isn’t finished at birth.
Developmental Phase

Four More Core Principles of Preventing MEB Problems

• Coordinated community-level systems are necessary
• Non-parental adult relationships are important
• Early symptoms of most MEB problems usually precede full blown conditions by several years
• For the foreseeable future, the focus of prevention of MEB problems will be on psycho-social interventions that change environmental risks
Scoping Out Evidence-based Prevention of MEB Problems

• There are many interventions—universal (good for everyone), selective (good for some with risks), indicated (good for some with early problems).

• There is no complete repository of MEB prevention programs – but there are inventories (i.e. SAMHSA https://www.samhsa.gov/ebp-web-guide; Blueprints for Healthy Youth Development http://www.blueprintsprograms.com/).

• Interventions typically focus on a particular phase of human development.
Different Interventions Require Different Settings

Fun Facts about Prevention Programs for MEB Problems

• Most prevention interventions are psychological and social, not genetic or pharmacological.

• Effective prevention programs focus on changeable behaviors and environmental conditions and share known features.
  ✓ Promote protective factors
  ✓ Whole-person approach
  ✓ Long-term commitment
  ✓ Target multiple domains, e.g. family, school, community
  ✓ More than teaching
  ✓ Follow up with corrections and re-enforcement
  ✓ Tailor for gender, culture, language, developmental stages
  ✓ Measure things that matter to people
Encouraging Facts About Prevention of MEB Problems

• Interventions reduce substance misuse, conduct disorder, antisocial behavior, risk-taking behaviors, aggression, anxiety, child maltreatment, depression among children/adolescents/pregnant women, and stigma.
• Interventions improve academic success, moderate the effects of poverty, improve educational attainment/employment/well-being.
• Evidence that some interventions’ benefits far exceed their costs.
• Desired prevention programs can be implemented with local leadership, imagination, collaboration, imagination, evaluation, imagination, and sustained commitments.
If This Is True, Why Isn’t There More Progress??

• The structure and payment systems of our health care system are a fragmented mess that neglects MEB problems

• Critical contributors to preventing MEB problems lack connections with each other

• Stigma

• Public views about MEB problems often differ
Typology of Americans’ Health Values

An Example From Colorado

UPSTREAM! Together

Aiming to establish three communities of solution ready to prevent MEB problems, locally.
UPSTREAM! Together Communities of Solution
Community of Solution Illustration
Contaminated Water Supply

A Community of Solution
Those who work together to solve a problem that the local community wants to address.

Oftentimes, the solution requires people to work across boundaries (i.e., state and county lines, service areas, usual neighborhood borders).

Adapted from The Folsom Report, 1967
The Expected Result

• Identified priority local MEB problem to prevent.
• Assessment of problem-shed and asset-shed.
• Selection of a viable program of action.
• Organized community of solution.
• Proper evaluation to learn and determine results.
• Poised for implementation funding.
• Local ownership and leadership for the long haul.
Questions

1. What will overcome the fragmentation thwarting the prevention of MEB problems?
2. Is proceeding with a promising or model prevention program adapted to accommodate local conditions a mistake or a solution? Why?
3. What are the ways to organize and implement prevention strategies so they persist not for months or years, but for decades?
4. Who can and should be responsible for measuring results of MEB prevention programs?
QUESTIONS?
Rules for the Road

• Never sacrifice alignment with public good for professional gain.
• Never forget rural populations.
• There is no one among us unworthy of health care.
• Being the best never goes out of style.
• We’re not going away, ever.
Let’s Close the Gap!

Between What We Know And What We Do To Prevent Mental, Emotional, Behavioral Problems
Impact of stress, adverse events, and resilience on MEB problem expression

Threshold for MEB Problem expression

At any given level of general community/family stress adverse events and resilience factors play a role in MEB problem expression and suffering

- ACE
- Genetic factors
- Trauma
- Other event

Intervention
- Resilience factor
Continuum of Care