

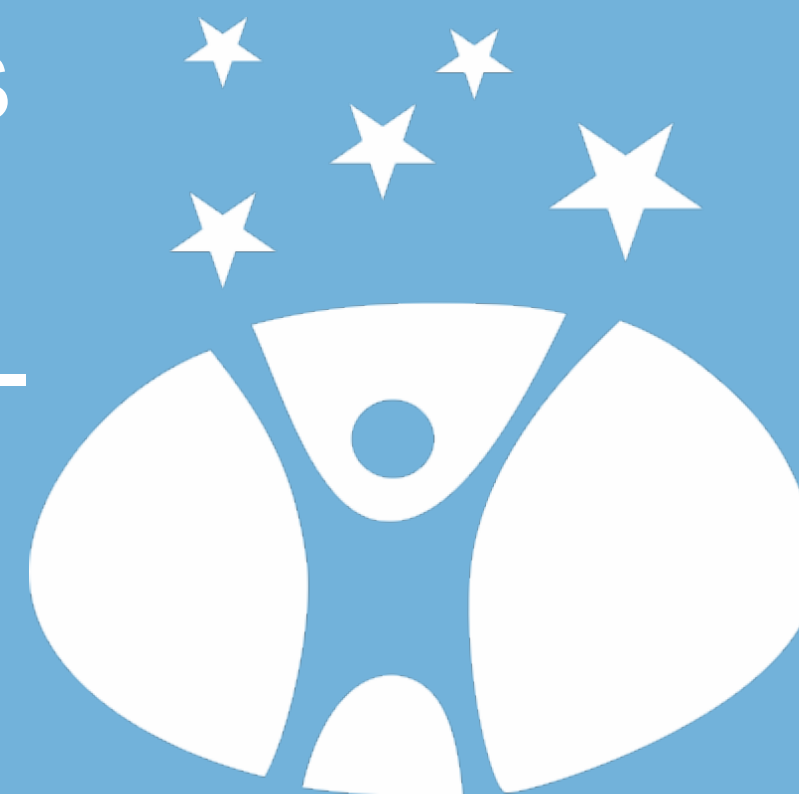
A CONGRESSIONAL
BRIEFING
Practical Lessons on
Moving Successfully
from Prevention
Science to Policy:
What Works in Getting
“What Works” into
Policy

December 3rd, 2014
(1-3:30 PM); Rayburn
House Office Building,
2237



Entrepreneurial approaches
to large-scale, sustainable
implementation of evidence-
based practices:

*Lessons from the PAX Good
Behavior Game and Other
Population Level Strategies*



<http://bit.ly/NREPP>
GoodBehaviorGame.org

Dennis D. Embry, Ph.D., president/senior scientist, PAXIS Institute, Tucson, AZ
co-investigator, Johns Hopkins Center for Prevention & Early Intervention; Baltimore, MD
co-investigator, Manitoba Centre for Health Policy, Winnipeg, MB Canada



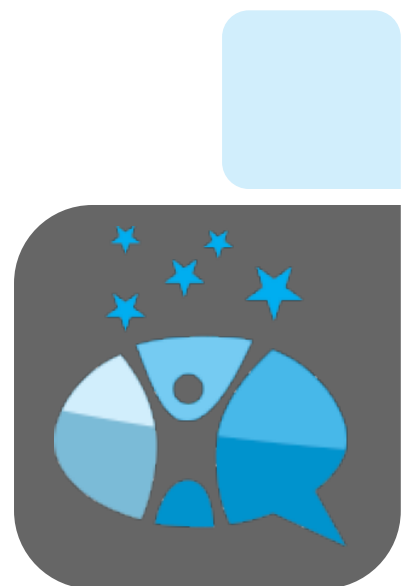
How many of you know a blue-collar, middle-class, or upper-class family who is reasonably intact...

with a child, teen, or adult child with a mental, emotional, behavioral disorder or even been suicidal? Or, committed suicide?

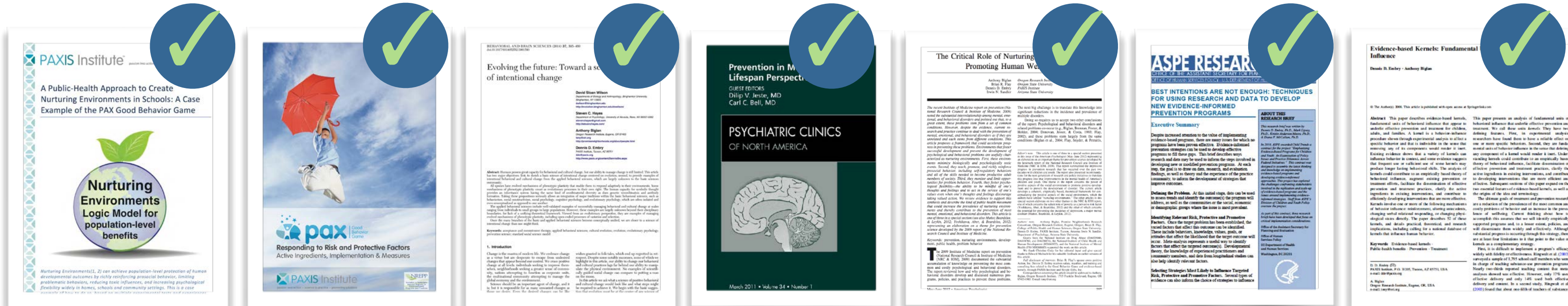


A common story of science...

30
Years



The scaling-up principles and policy strategies are described in:

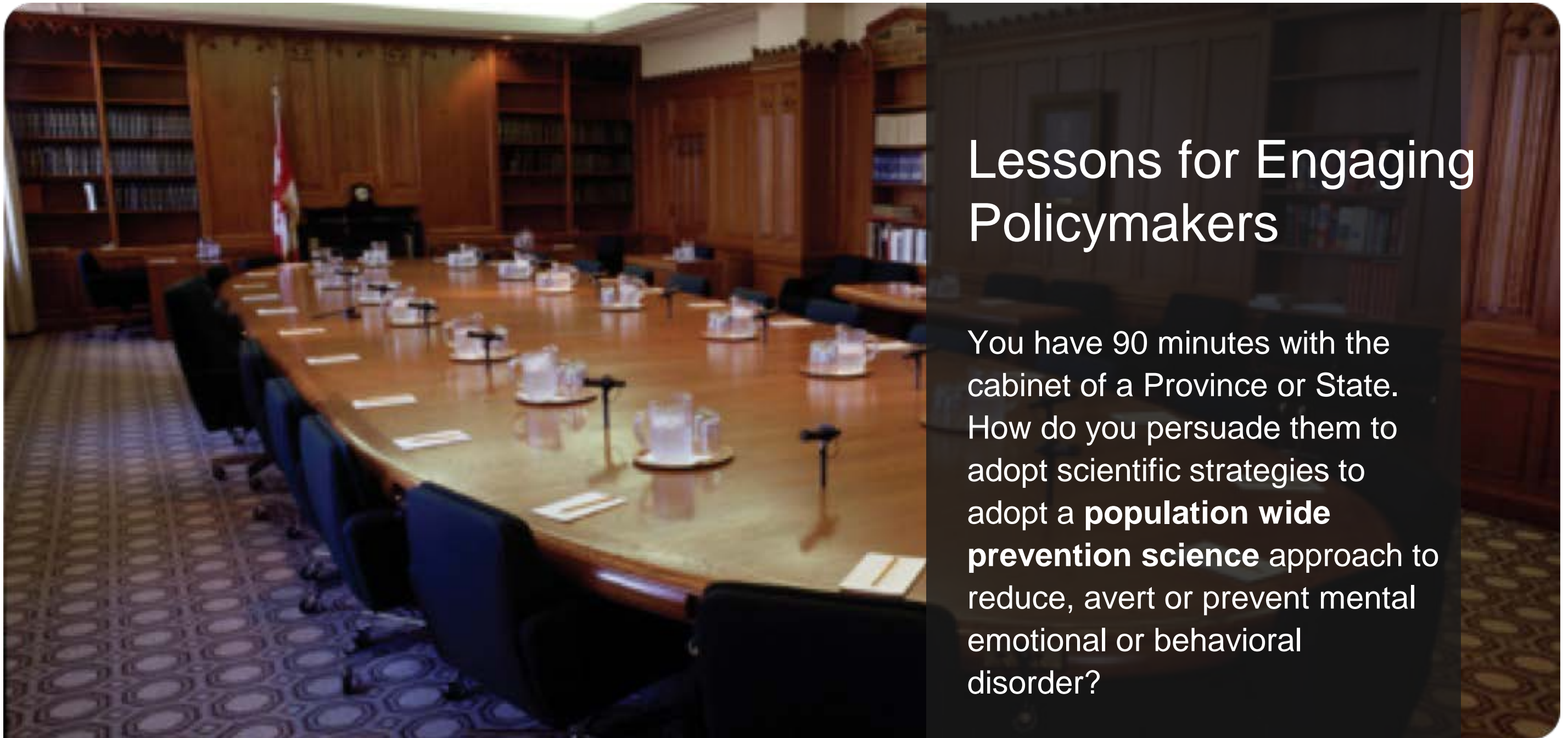


Available at:

www.researchgate.net/profile/Dennis_Embry/publications

Or, use individual links on the references and resources handout.





Lessons for Engaging Policymakers

You have 90 minutes with the cabinet of a Province or State. How do you persuade them to adopt scientific strategies to adopt a **population wide prevention science** approach to reduce, avert or prevent mental emotional or behavioral disorder?



An actual meeting with Cabinet Ministers, Nov. 2010, Winnipeg, Manitoba who adopted province-wide prevention




And now, how this audience can achieve similar, even better population-level results in America...



PAXIS Institute passion into action science to practice promoting

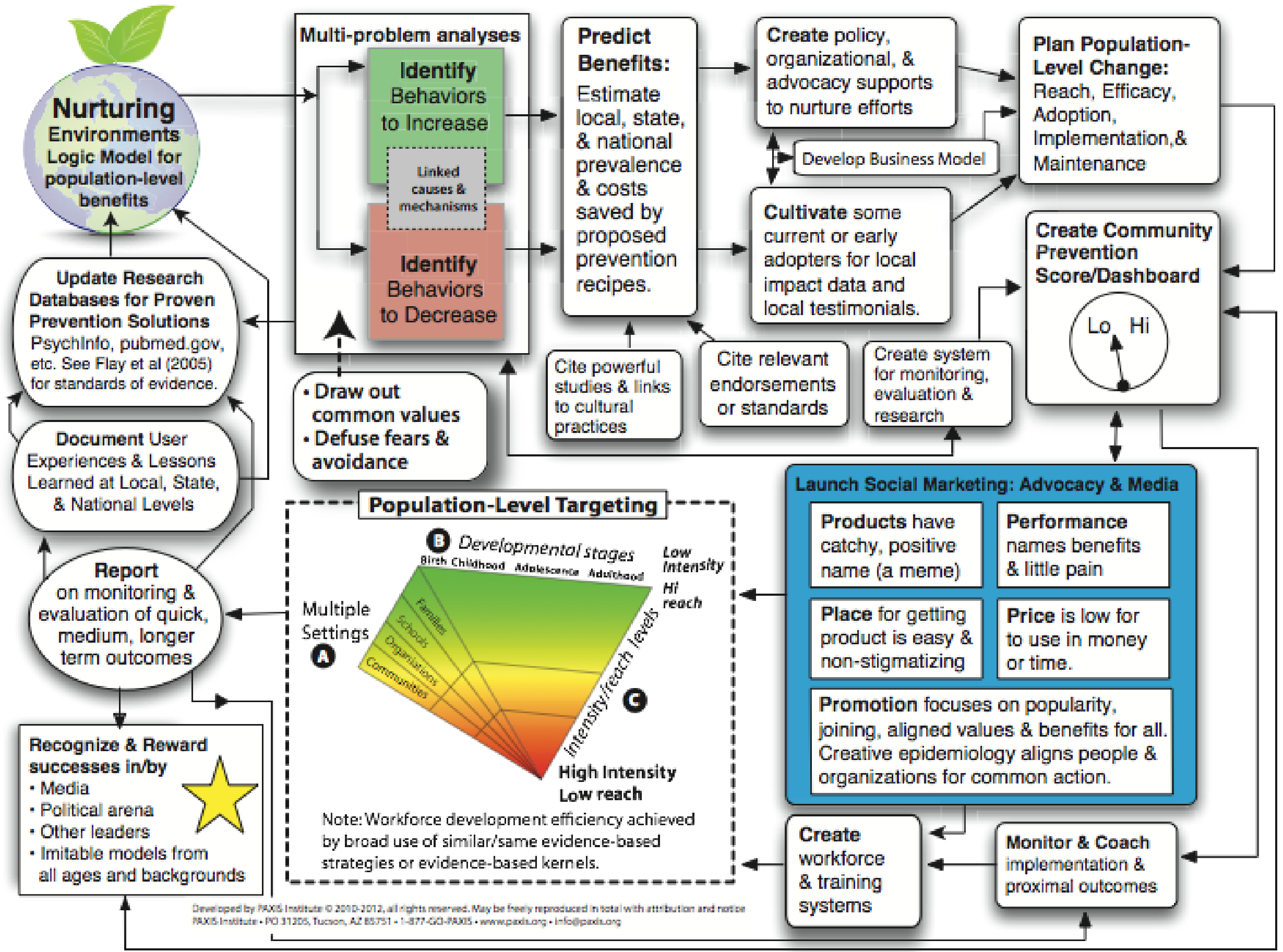
DRAFT • May 5, 2014

A Public-Health Approach to Create Nurturing Environments in Schools: A Case Example of the PAX Good Behavior Game

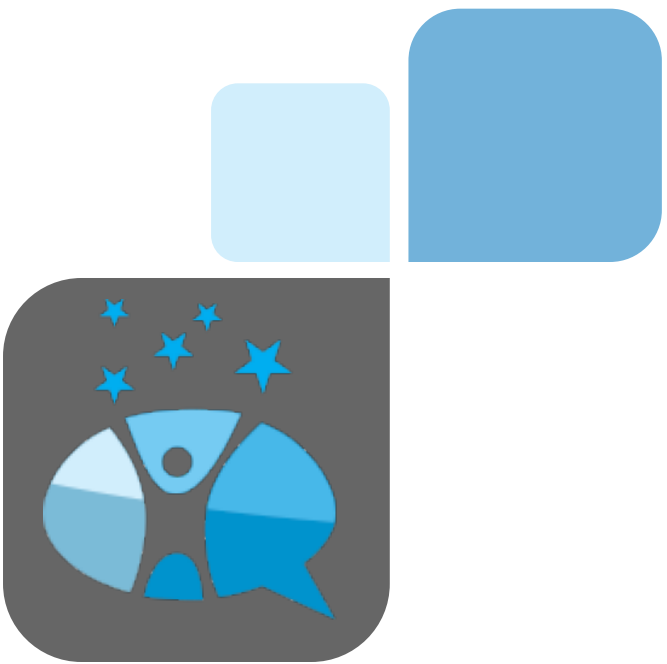


Nurturing Environments Logic Model for population-level benefits

Nurturing Environments(1, 2) can achieve population-level protection of human developmental outcomes by richly reinforcing prosocial behavior, limiting problematic behaviors, reducing toxic influences, and increasing psychological flexibility widely in homes, schools and community settings. This is a case example of how to do so, based on multiple experimental tests and experiences.



The Macro Model





Create momentum by making benefits real by...

- Linking to core values
- Mapping to broad political and social benefits and threats
- Bridging to audience's personal experiences
- AND, most importantly, delivering clear, easily understood and measurable "early wins"
- LINKED to a viable "business model"



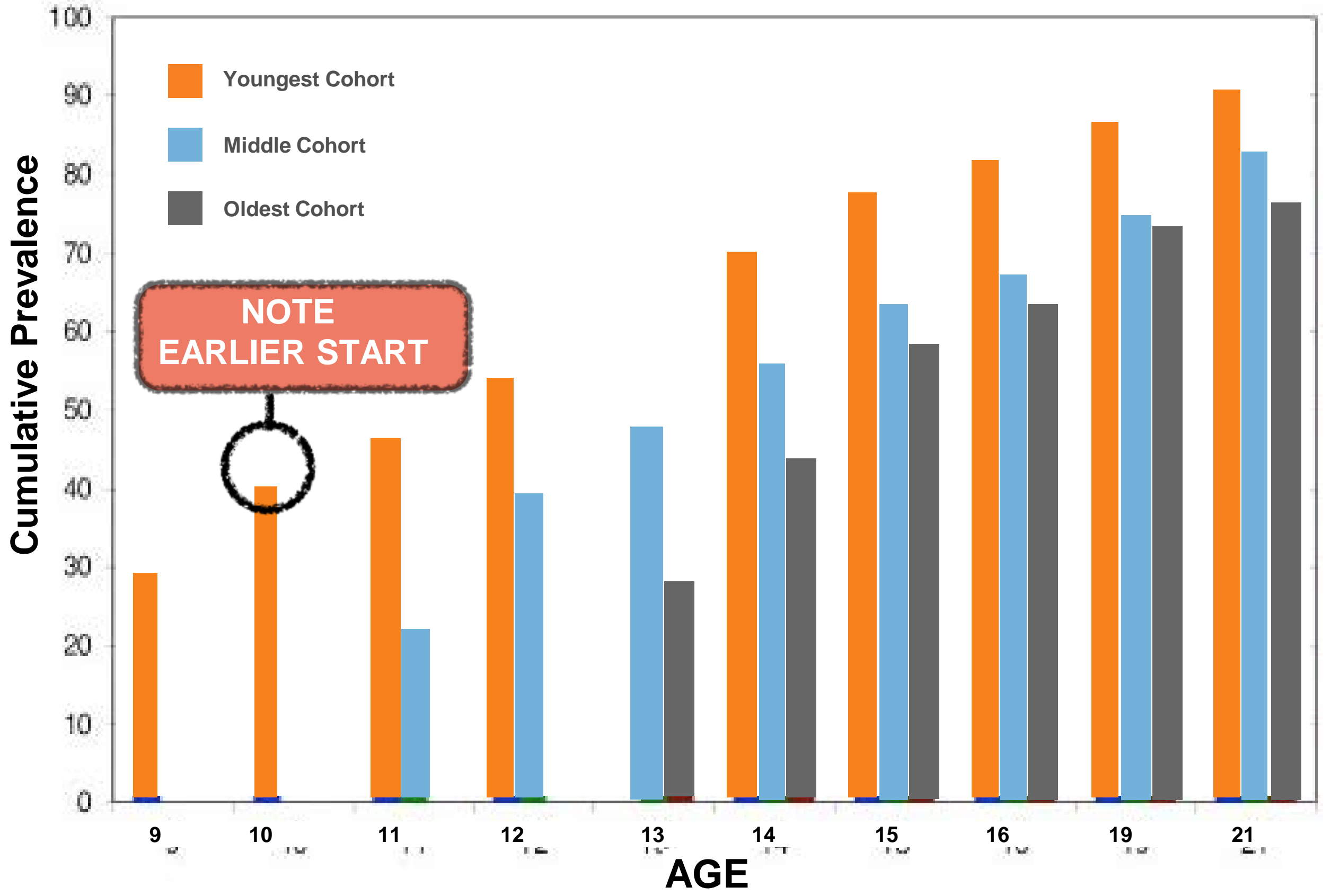
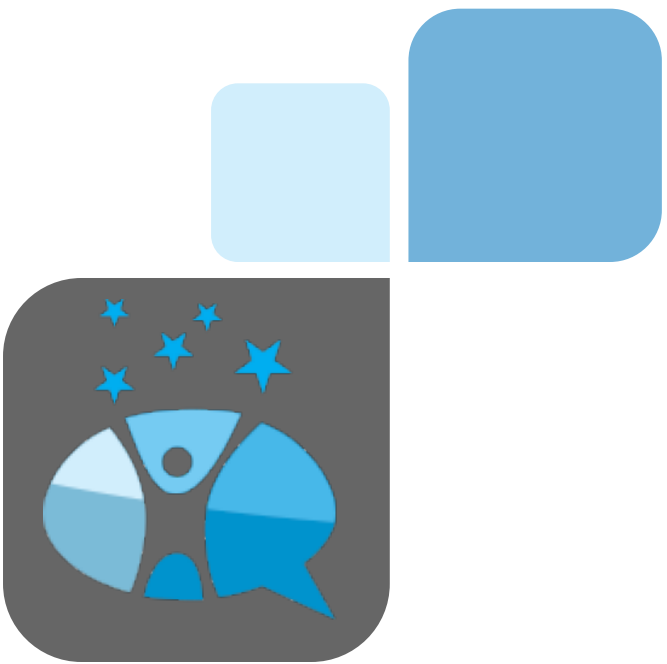
At the Beginning: Create Powerful Metaphor for Change



1950s Polio Epidemic: 3,000 deaths, 60,000 cases
If Polio Epidemic *now*: 6,000 deaths, 120,000 cases



Cumulative prevalence of psychiatric disorders by young adulthood: a prospective cohort analysis from the Great Smoky Mountains Study.

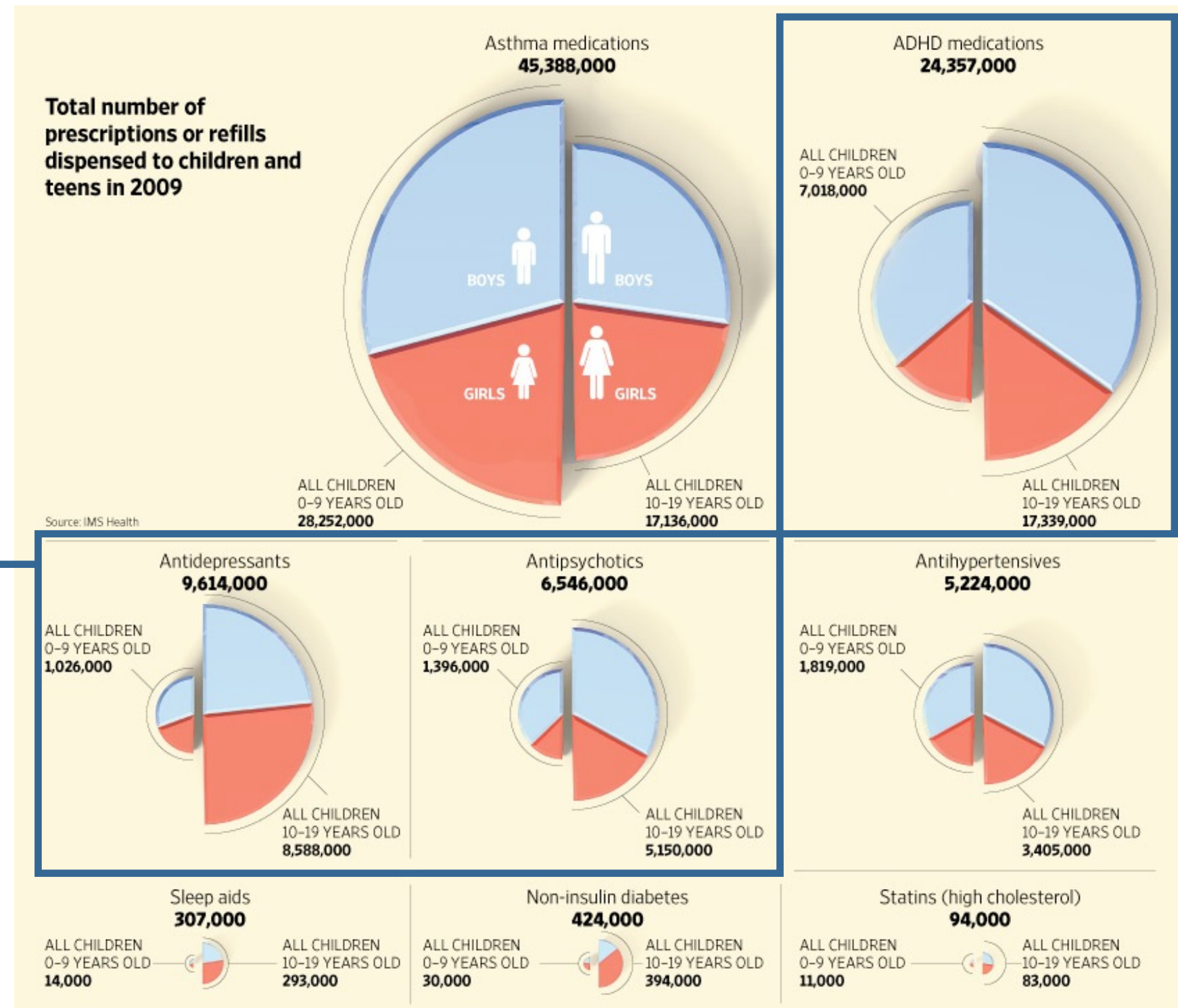


The US had 75 million children and teens 2009

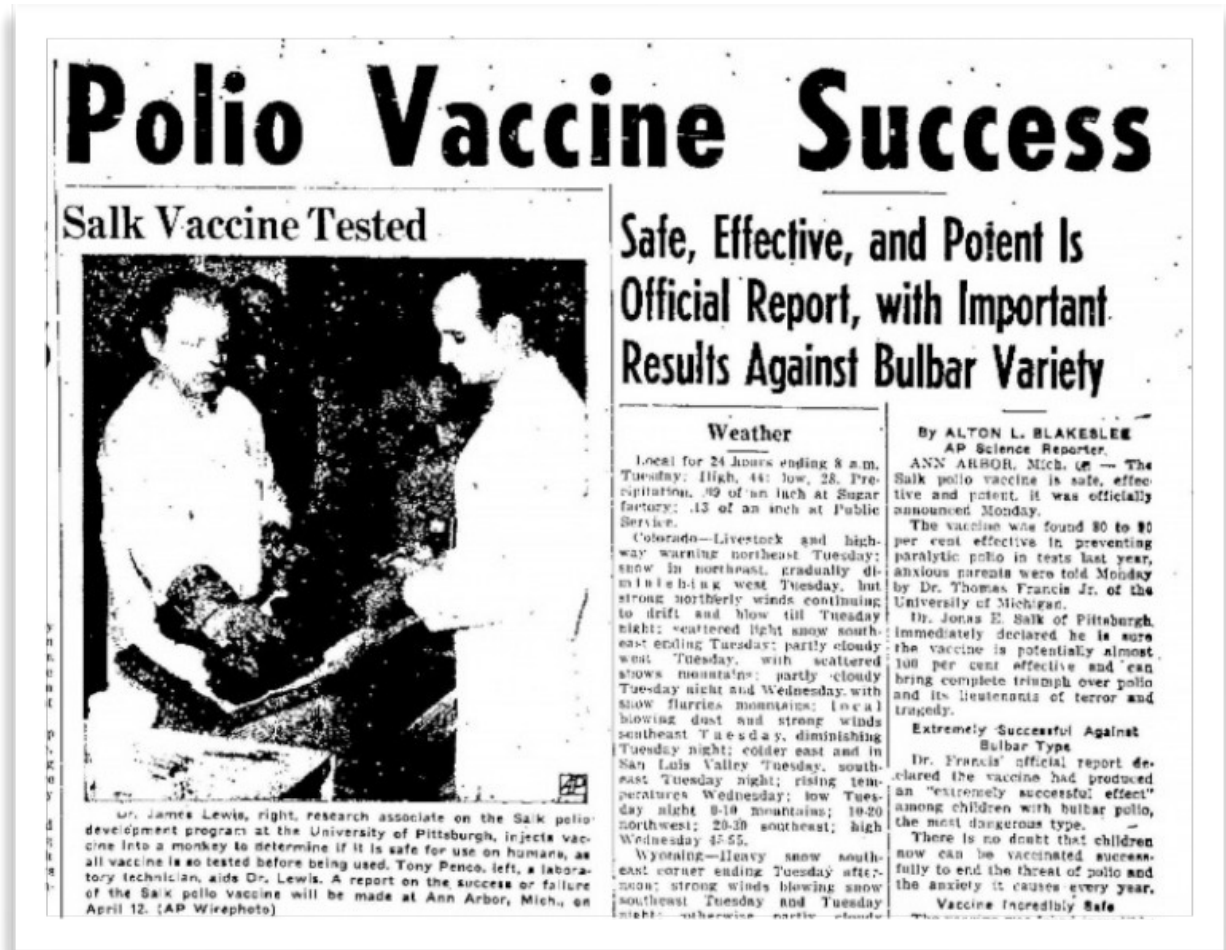
40.4 million kids had *one* psychotropic med in 2009



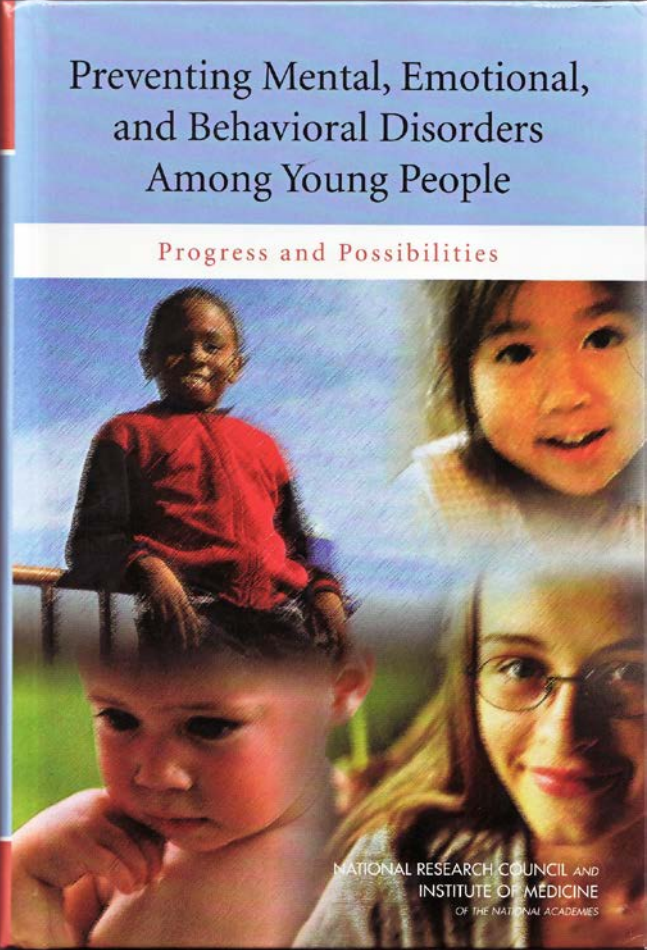
Wall Street Journal,
12-28-2010



Demonstrate real promise of protection

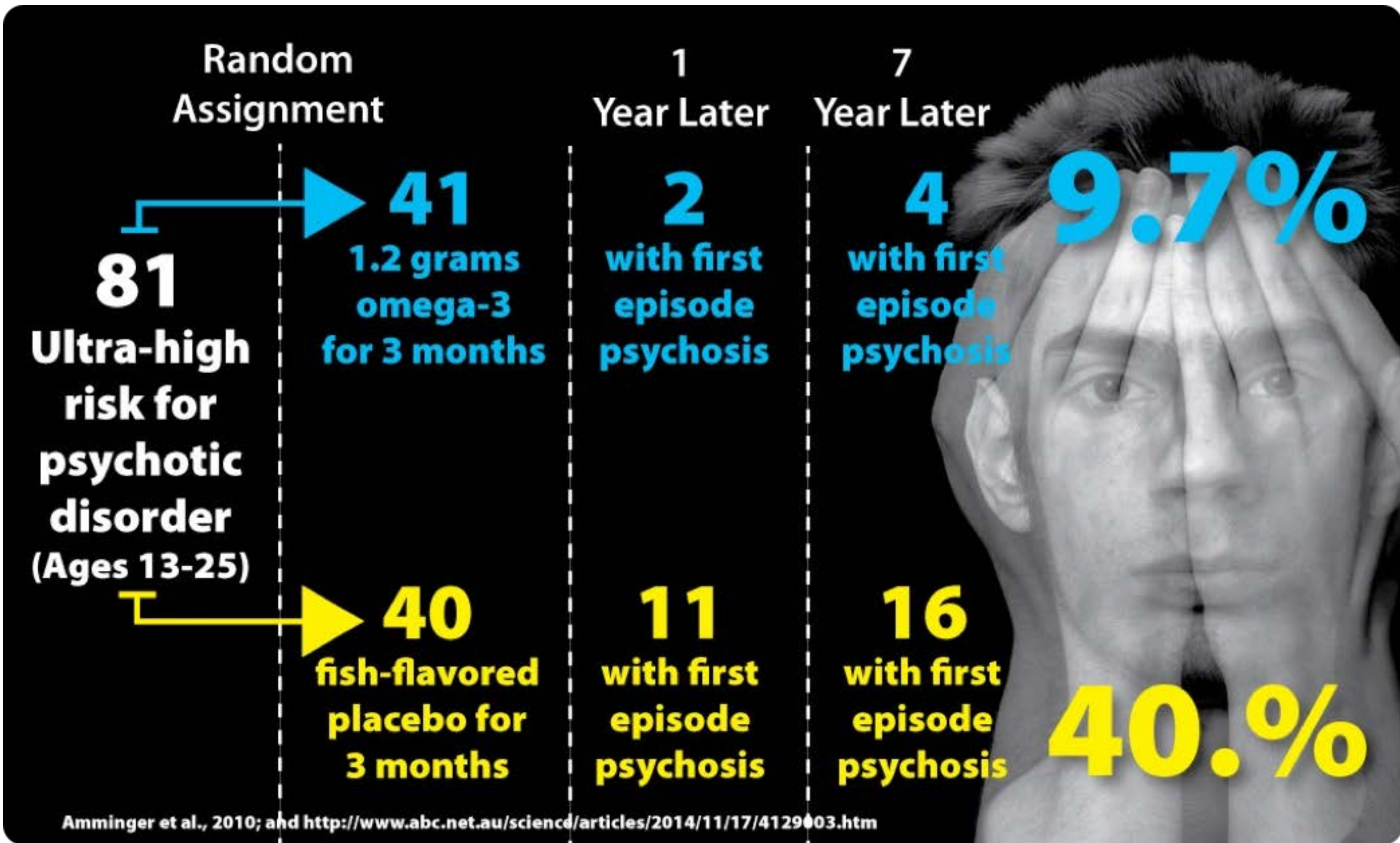
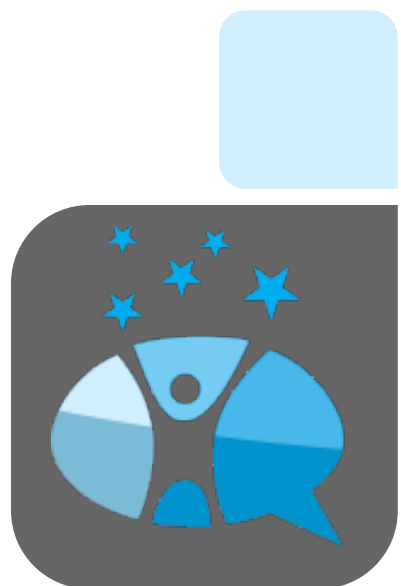


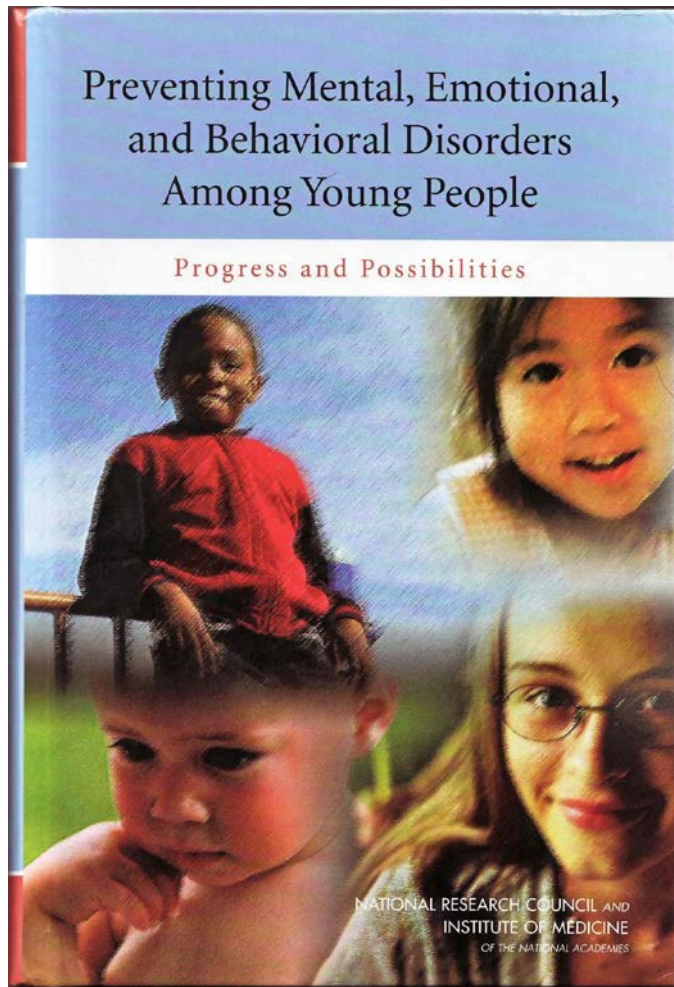
Salk Vaccine proven to express polio antibodies.



IOM Report confirms prevention of MEB's.



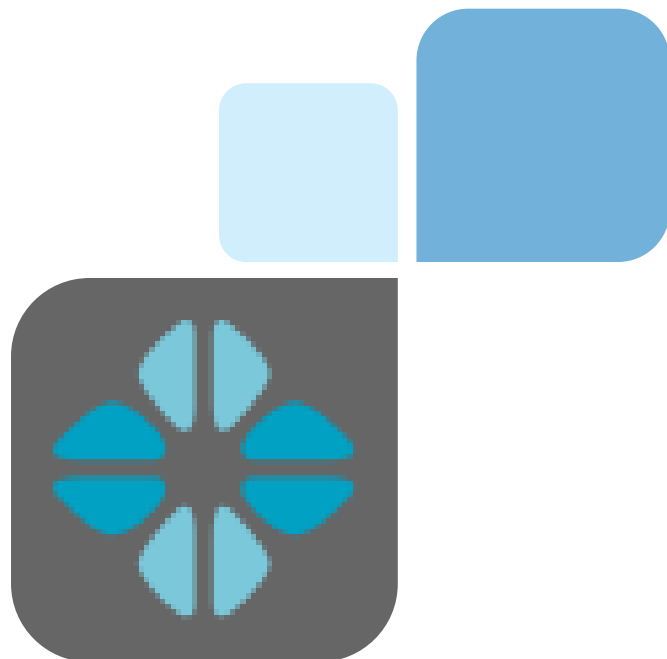




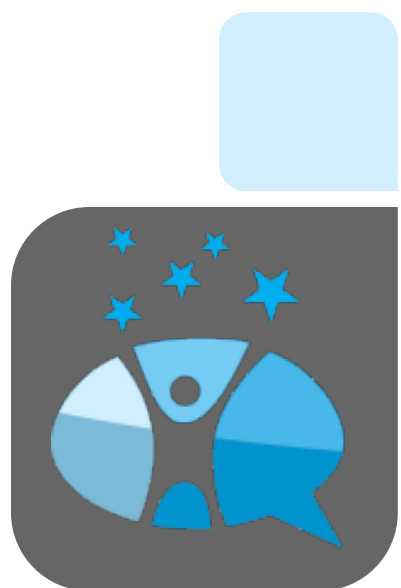
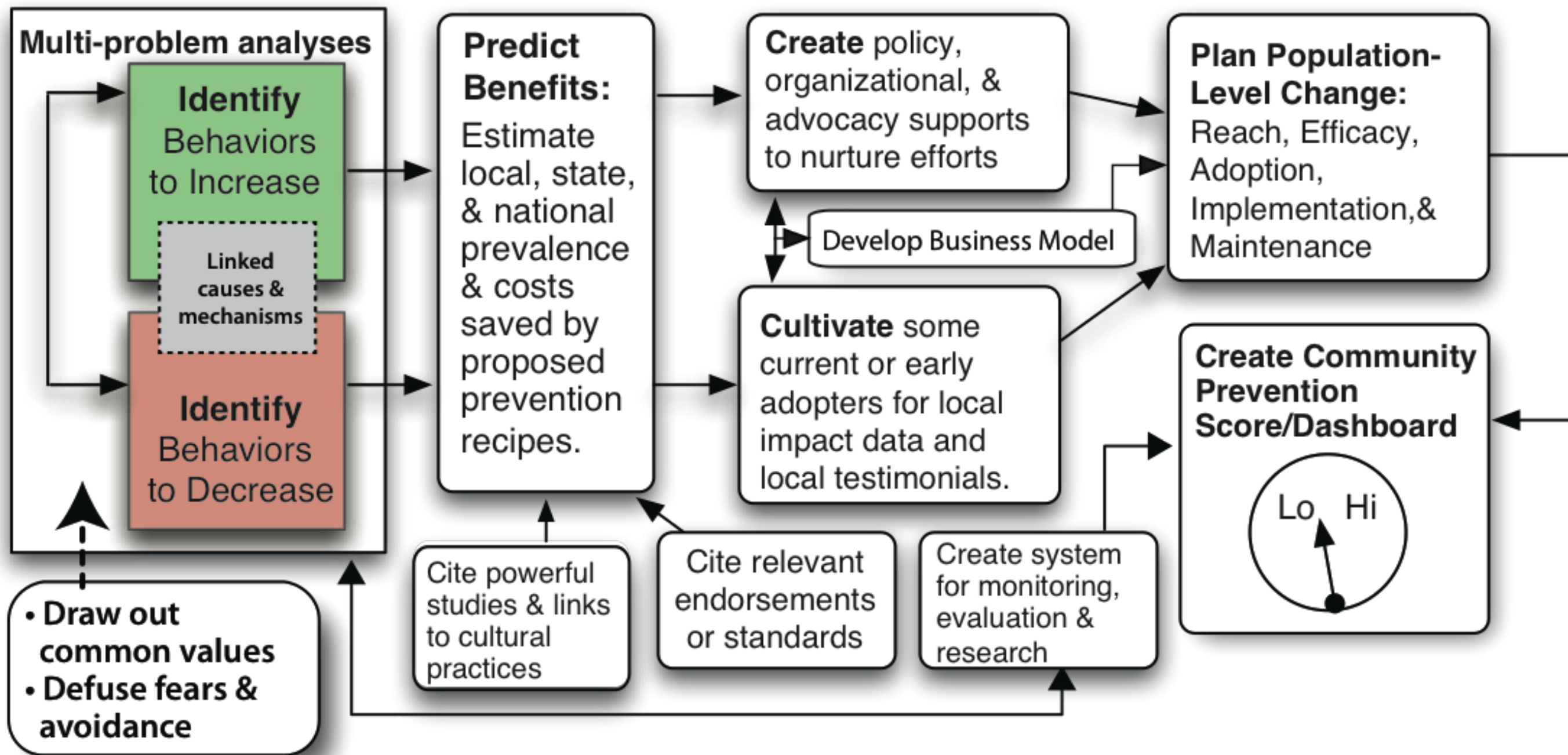
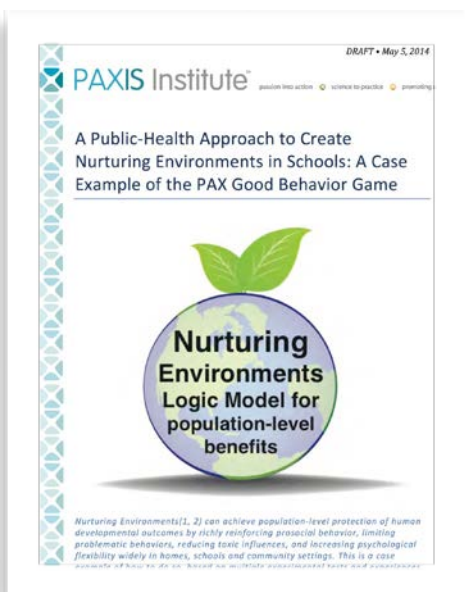
What would be the benefits if all U.S. 4 million first graders were protected by the PAX Good Behavior Game?

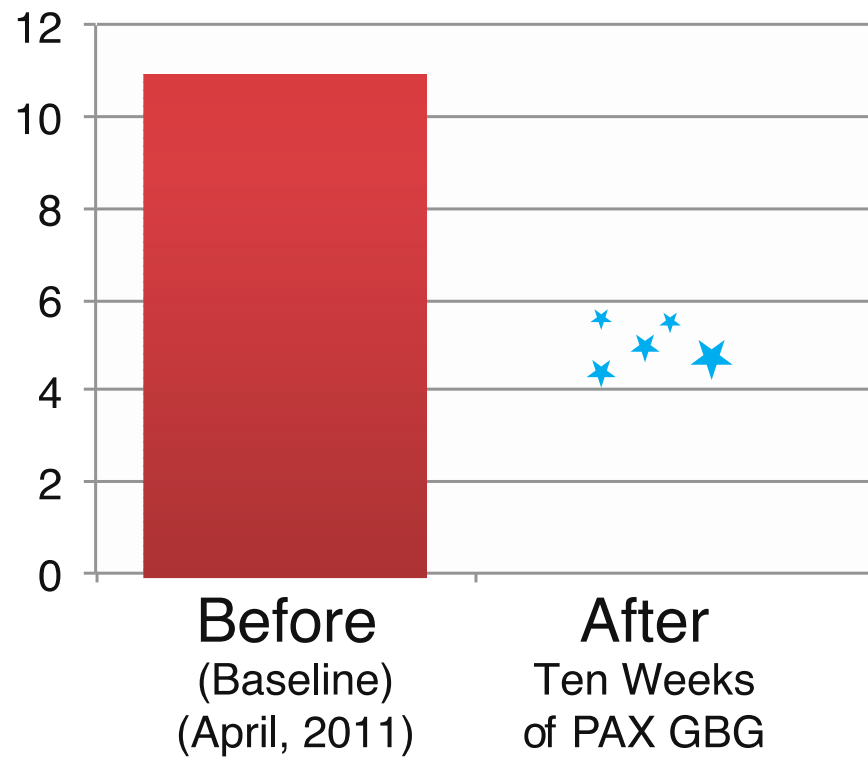
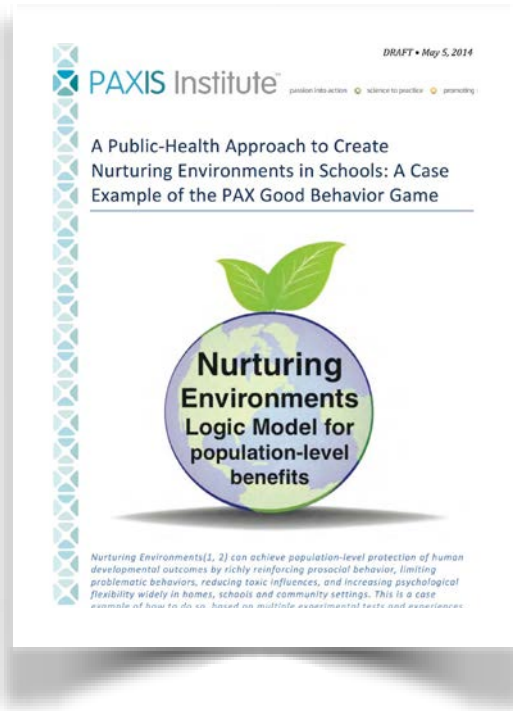
Number	Outcome
350,306	fewer young people will need any form of special education services
226,668	more boys will likely graduate from high school.
272,002	more boys will likely enter university
361,444	more girls will likely graduate from high school
282,440	more girls will likely enter university
39,564	fewer young people commit & be convicted of serious violence violent crimes
391,518	fewer young people will develop serious drug addictions
267,881	fewer young people will become regular smokers
144,244	fewer young people will develop serious alcohol addictions
197,510	fewer young women will contemplate suicide
267,881	fewer young men will attempt suicide

With PAX GBG, America's citizens, families, schools, communities, and children themselves will save an estimated **\$53 Billion** (NET) when the children reach age 21



Planning Phase for Population-Level Prevention

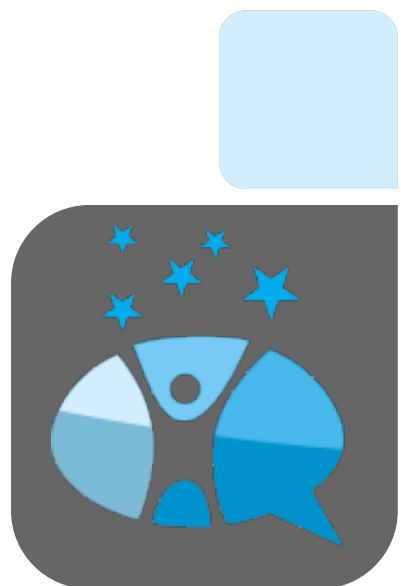
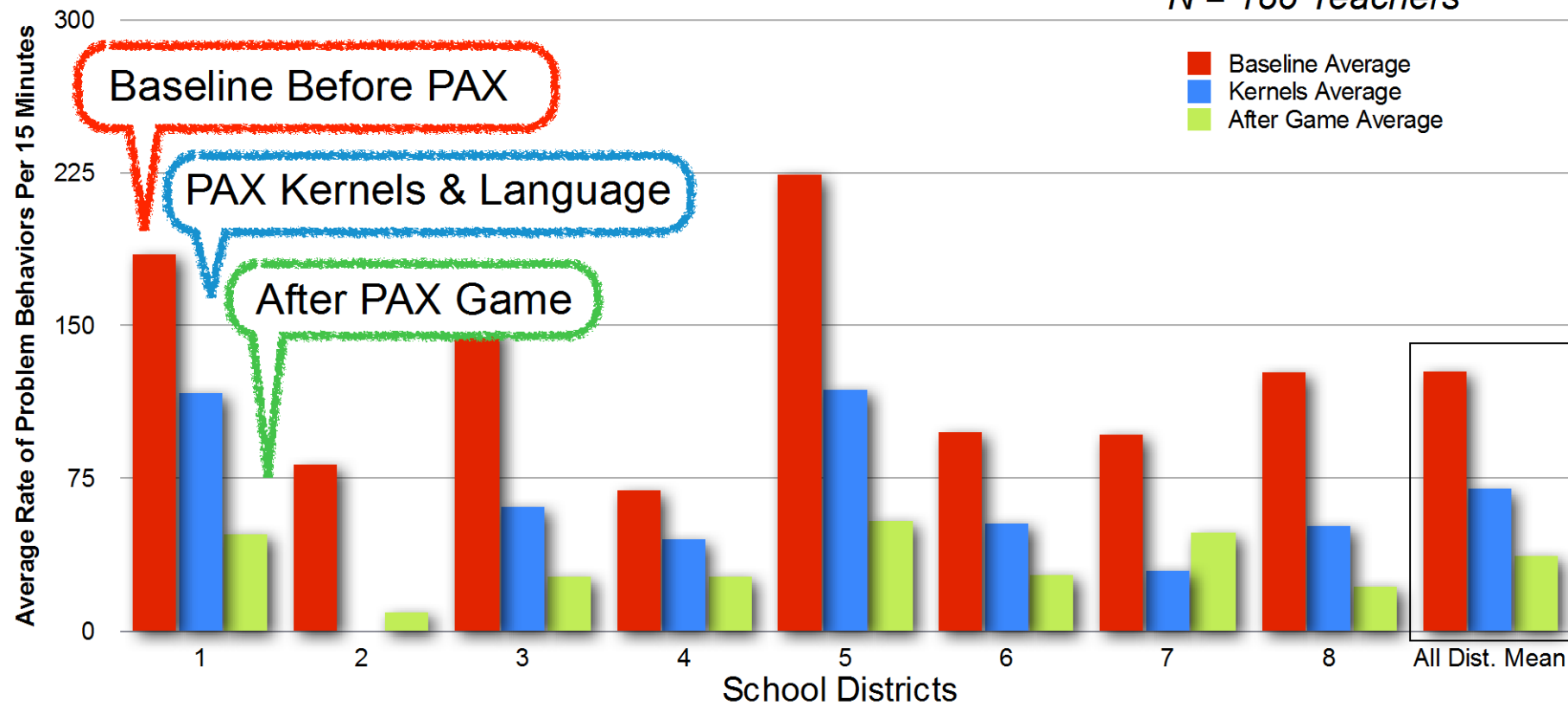




Design the system to demonstrate early measurable wins, easily understood by all stakeholders as important

3-Month Impact of PAX in Eight US School Districts on Disturbing, Disruptive and Inattentive Behaviors Per 15 minutes

N = 186 Teachers



Some mixed business models...

Happening NOW!

“Thank you SAMSHA seeding this.”

- ✓ **Insurances** pay for PAX GBG (e.g., Nationwide Children’s Hospital, Trillium) or State **Medicaid** (e.g., Ohio) because this is way more cost effective and with better outcomes than any psychotropic evaluated and reported in PUBMED.GOV.
- ✓ **School districts** pay because it lowers cost of special education and increases test scores.
- ✓ **Parents or grandparents** pay for it because it helps their child or grandchild
- ✓ **Local non-profits and for-profit** providers become accredited to deliver the service, because local communities are more likely to invest in it, even with a bond levy
- ✓ **Pre-service institutions** pay for materials because their graduate students are more likely to get jobs.
- ✓ **States** (e.g. Ohio/Washington) use Block Grant to pay for this

Just Starting

Sites or providers obtain Early and Periodic, Screening, Diagnosis and Treatment (EPSDT) reimbursement, because this can have dramatic cost-effective benefits for Medicaid and reduced SSDI.

Now is the time!

- ★ **Congress** realizes this is key to our economic and military safety, and crafts changes in block grants and other programs to incentive states to adopt (*we have a list started*).
- ★ **Business leaders** see benefits and support Social Impact Bonds.





ELINOR OSTROM

2009 Nobel Laureate
in Economic Sciences

Nobel medal © © The Nobel Foundation



Organize Children's Futures using Common Pool Resources Model:
See Healthy Child Manitoba Act & Wilson et al. 2014 on the resource list.

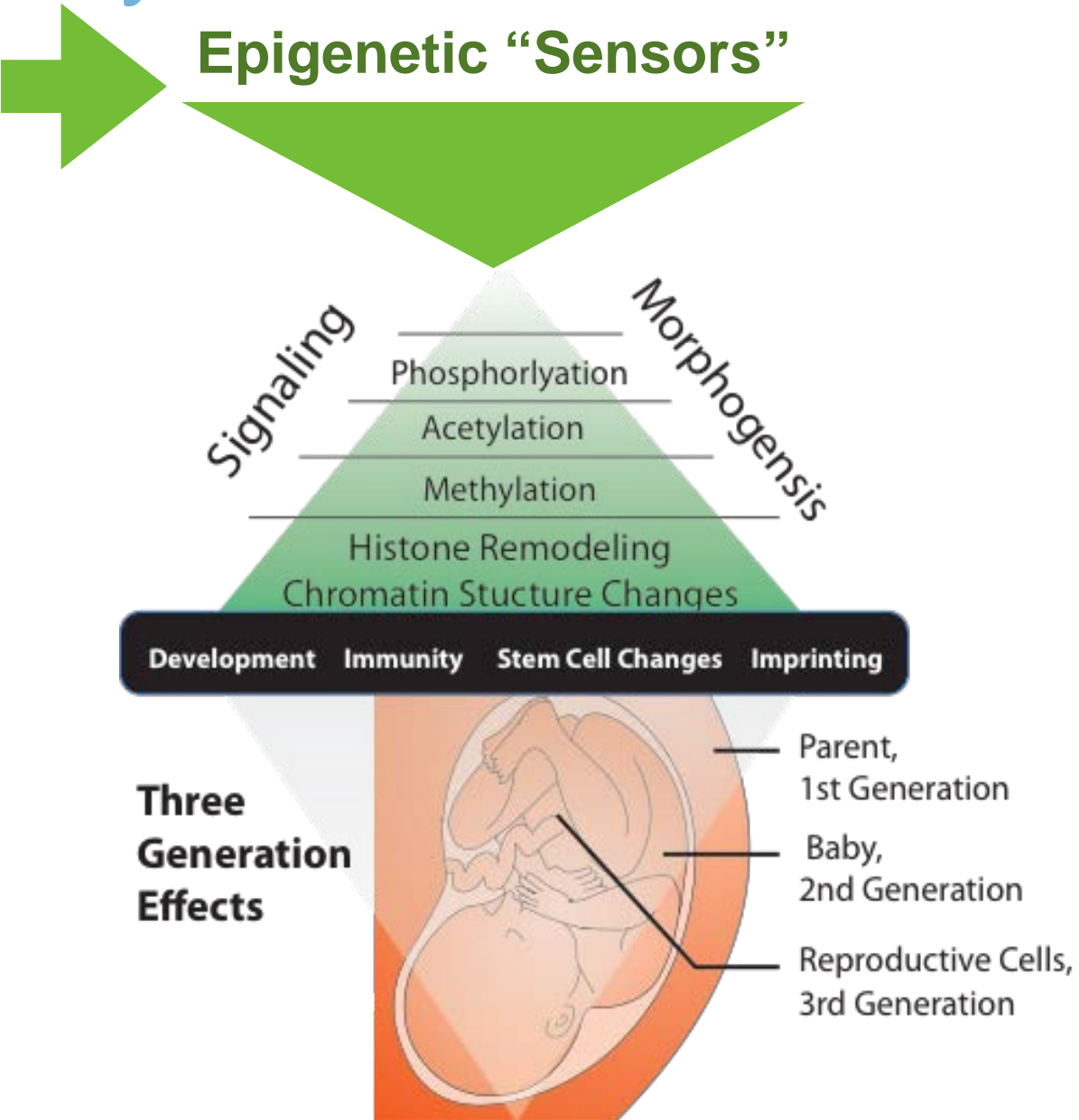
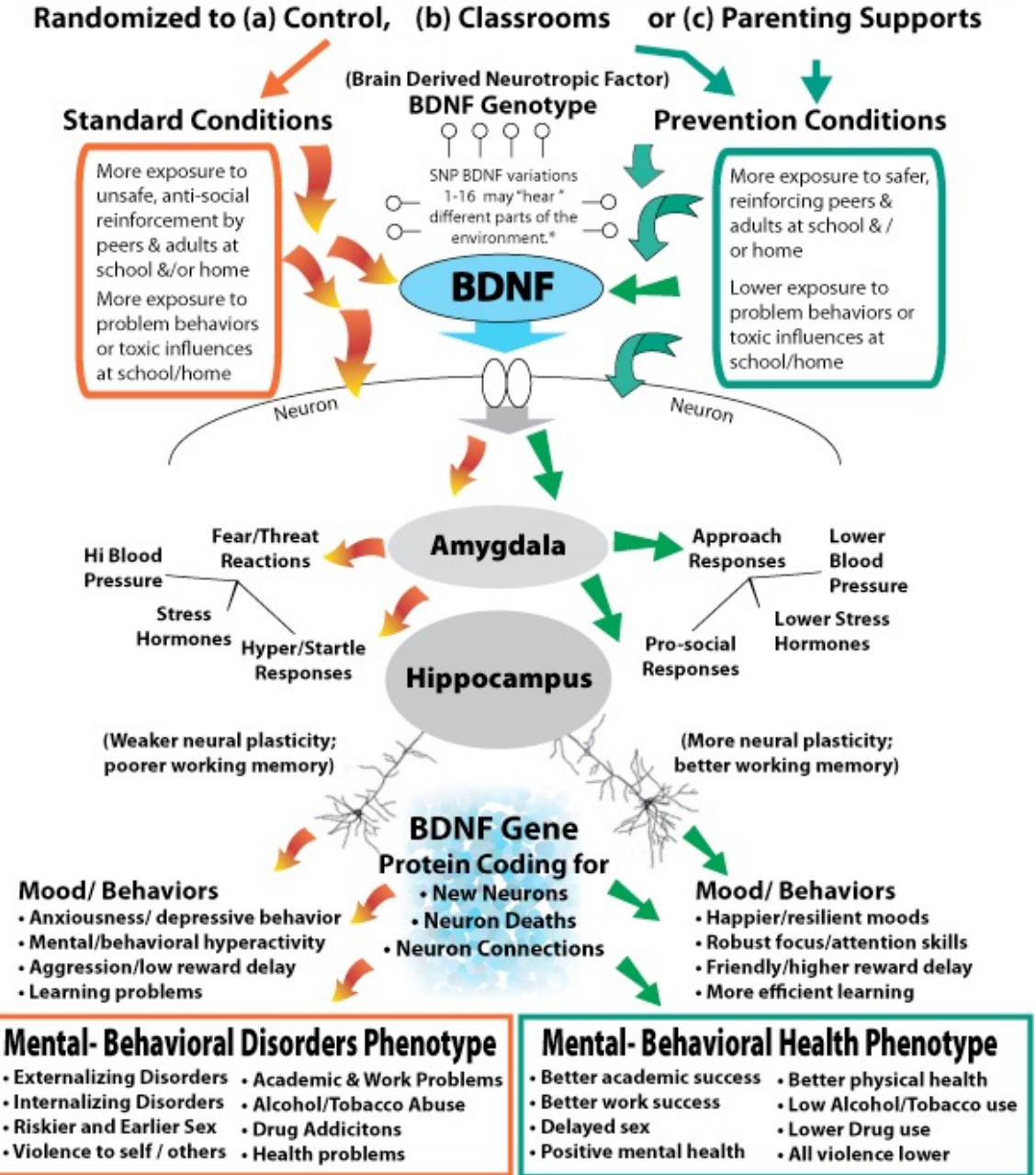


PAX GBG nurturing classroom environment causes positive phenotype brain-gene expression over 20 years...

Nurturing Environments

- High Reinforcement for Prosociality.
- Low exposure to problematic threatening behaviors
- Low exposure to toxic biological influences.
- Low exposure to psychological inflexibility.

How the Social Environment Affects Expression of Genes Associated with Mental and Behavioral Disorders from Recent Experimental Results Following Children for Two Decades*



*Graphic visualization of the findings from: Musci, R. J., Bradshaw, C. P., Maher, B., Uhl, G. R., Kellam, S. G., & Jacono, N. S. (2013). Reducing aggression and impulsivity through school-based prevention programs: A gene by intervention interaction. *Prevention Science*, No Pagination Specified. doi: 10.1007/s11121-013-0441-3. Note: The beneficial effects were twice for the classroom strategy compared to the parenting supports.

Please Access Resources List and Audio Visual for Action...



Here are following resources to assist moving toward population-level, universal prevention of mental, emotional, and behavioral disorders among young people.

The **scaling-up** principles and policy strategies are described in:



Available at:

www.researchgate.net/profile/Dennis_Embry/publications



- Review of PAX GBG at the National Registry of Evidence-Based Programs and Practices, please see: <http://bit.ly/NREPP>.
- Video about implementing PAX GBG in 186 classrooms and 8 school districts, please see www.PAXGoodBehaviorGame.promoteprevent.org.
- Predicted impact of PAX GBG in each of the 50 states plus District of Columbia, please download: <http://bit.ly/PAXGBG-50states-nov2014>.
- Excel spreadsheet to calculate benefit in any political division, school or school district: <http://bit.ly/PAXGBG-Local-Estimator>
- Description of PAX GBG for end-users: <http://bit.ly/WhatIsPAXDec2014>
- Documentary special on Canadian Broadcasting Corporation: <http://bit.ly/CBC-PayNow-Or-Later>
- 2009 Institute of Medicine Report on the Prevention of Mental, Emotional, and Behavioral Disorders Among Young People, <http://bit.ly/IOMPREV>.
- View TEDx talk on these issues, <http://bit.ly/EmbryTEDxWhitehorseYukon>



Path for the Future of America...

GWB + GDP =

Gross Well Being

Gross Dom. Prod.

Prosperity, Productivity,
Peace, Health and
Happiness for the future of
ourselves and our children.



With just 130,000 first graders out of 4 million getting PAXGBG now, that can save: \$1.8 billion (net) 10-15 years.

1 Year Old



64 Years Old



Further Reading

- Search www.pubmed.gov (National Library of Medicine) for the following:
 - “Behavioral Vaccines
 - “Evidence-based kernels”
 - “Nurturing Environments
- www.researchgate.net/profile/Dennis_Embry/publications

Image of the **Koru**, the Maori infinite symbol of spiral of life

Thank you



Dennis D. Embry
dde@paxis.org

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- Nobel Prize Committee photo of Dr. Elinor Ostrum