Prevention, the University of Manitoba, and Yale University
Co-Investigator at Johns Hopkins University Center for
Institute.

DR. Dennis J. Emsby, President/Executive Director, PACIS

and Preventing Mental and Related Illnesses
A Non-Pharmacological Behavioral Vaccine for Promoting Wellbeing

The PAX Good Behavior Game
What is a behavioral Vaccine?

© or increases well-being.
© decreases mortality.
© decreases morbidity.

A behavioral Vaccine is a repeated simple behavior that:

10.1016/j.psc.2010.11.003

of North America, 34(March), 1-34. doi:

Mental, Emotional, and Behavioral Disorders. Psychiatric Clinics

Kemerer: Non-Pharmacological Approaches for the Prevention of


© or increases well-being.
© decreases mortality.
© decreases morbidity.
Behavioral vaccines can be used by:

- By governments
- By organizations
- By individuals

Personal, family, group or public health/safety
Available at:  

Behavioral Disorders
Emotional, and Prevention of Mental, Approaches for the Nonpharmaceutical Evidence-Based Kernels: Behavioral Vaccines and
Mental, Emotional and Behavioral Disorders = MEBS
Lifetime Prevalence of Disorders in US Adolescents

(N=10,123)

(Merikangas et al., 2010)

Axes:
- Y-axis: Age in Years
- X-axis: %

Categories:
- Mood
- Behavior
- Substance
- Anxiety
polio epidemic in North America in the 1950s. Why?

universal protection strategy—just like we did for the
and cost effective to use a true public-health
this risk is nearly universal, and it is more efficient

and protective factor analyses and logic models.
we must stop „rationalizing“ prevention based on risk

... report from past practices in the
A key difference exists in the
We stopped the Polio Epidemic.

We possess behavioral vaccines that can avert the epidemic of mental, emotional, behavioral, and related physical illnesses—like.
Read about multiple scientific studies on the "Good Behavior Game" at www.pubmed.gov

PAx GBC: An Example Behavioral Vaccine
Something to remember about PAX.

Securing a positive future for their students' lifetime, teachers hold as their deepest values for being a teacher—

3. PAX is one of the single most proven strategies a teacher

3. PAX gets rid of hundreds of daily, weekly and monthly

3. classroom management program.

3. It is NOT a classroom management program per se, but it

3. It is NOT a prevention curriculum.

3. It is used during normal instruction, for any subject.
They teach children a vision of a wonderful
To create more good,

By sweeping away the
called "PAX"

"bad", called "Siege"
During an regular teaching & learning activity:

Playing the PAX Game by Teams:
**To Win**

**Team Aim:**

Sweep Away

- PXAX Minutes = winning teams x minutes played.
- Team having 4 or more Spleems lose that game.
- Winning teams earn a "Granny's Wacky Prize!"
- Teams who have 2 or fewer Spleems win.

Spleems are counted and marked with neutral

- Teachers, Class, or Own 68

**Scoreboard**

- PXAX
"Granny's Wacky Prizes"
Winning teams get
PAX creates immediate measurable effects

Average Decreases For Four "Systems"

CGC grantees
SAMHSA
PAX Administration and Mental Health Substances Abuse
one of 18 Example data from

6/15/2012
The PAX Game Teaches

- Mild sanctions for anti-social acts by others
- Behavior from peers
- How to ignore accidental attention to negative cooperation to achieve a bigger goal
- Delay of gratification
- Self-regulation during failure or disappointment
- Self-regulation, self-calming under excitement
- Voluntary control over attention
- Orientation/dependency
- Individual and group goal
Longitudinal Johns Hopkins Studies of CBG

Purpose: To find out if

- CBG affected their adult lives.
- CBG affected their adolescent lives.

Note: Some kids got CBG some in both 1st & 2nd grade, only in 1st grade, only in 2nd grade.

- CBG exposed groups
- Consecutively grouped schools with two 1st elementary classrooms within first-second grade

Tested in 41 first-grade kindergartens

Follow-up Young adulthood Grades 2 thru 12

Follow-up Age: 30 & 26

Age: 19-21

Age: 16

Age: 15

No More CBG

First Grade
Read this and other studies about the Good Behavior Game at www.pumed.gov


<table>
<thead>
<tr>
<th>Outcome</th>
<th>Standard Classroom</th>
<th>GBE Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Grade</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Benefits**
- Improved academic performance
- Reduced problem behaviors
- Increased social skills

**Side Effects**
- Disruptive behavior
- Use ofiers and ABD

**Side Effects of GBG**
- Increased anxiety
- Depression

**Side Effects of GBG**
- Increased stress
- Decreased aggression

**Side Effects of GBG**
- Increased conflict
- Decreased cooperation

**Side Effects of GBG**
- Increased boredom
- Decreased participation

**Side Effects of GBG**
- Increased frustration
- Decreased cooperation

**Side Effects of GBG**
- Increased anxiety
- Decreased motivation

**Age 21**
These benefits at first graders exposed to GBE for one year had

---

6/15/2012
First five years

After an investment of $500 million (less after age 21), every First Grade cohort by US. that saves $18 billion by
Assuming 4,000,000 First Graders each year in the others per student exposed in First Grade over 15 years.
and
PAX GBC pays back $4.6 billion to individuals, taxpayers, and
academic success—including university entry.
accrue to health care, to education, to crime, and increases their
addictions, becoming criminal, dying suicidal, dying from
life from mental illnesses, behavioral problems, drug

to do PAX GBC will cost about $150 to protect our children for
How much might PAX GBC
save for America's future?
Action steps to bring PAX to your jurisdictions:

- Select a model for your jurisdiction.
- Identify stakeholders in your jurisdiction.
- Prepare a plan for implementation.
- Communicate with stakeholders to ensure buy-in.
- Establish clear goals and objectives.
- Develop a timeline for implementation.
- Monitor progress and make adjustments as necessary.
- Celebrate successes and learn from challenges.

By age 21,
including cost savings for each first-grade cohort

Give leaders & stakeholders research summaries,

See PAX in action.

Take action:

- Teachers, students, parents, and administrators.
- Capture video testimonials from participants.
- Adapt.

America.

Observations of impact like 18 SAMHSA sites in

Use independent, before and after.

Pilot in Manitoba.

Adolescent school patterns like the Selma River Rapid.

Create a rapid pilot in your area with willing and
Adapt Healthy Child Marriage Act to your state.

Involves parent advocacy groups like CHADD.

Effective.

Exposure.

Oppositional Defiant Disorder or Trauma.

Work with insurance carriers (especially S-CHIP).

Implementation and sustainable coaching in classrooms with children with ADHD.

Bill CPT codes for consultation (with patient present) and (patient not present) for United Ways and other local leaders can make

Sample Action Steps for Sustainable PAX