

Talking Points for Population-Level Prevention

Did you know this fact?

Every month, scientific studies are published in prestigious journals, like the *American Journal of Medicine*, the *Lancet*, *Science*, *Developmental Psychology*, and others, about low-cost or no-cost preventive and/or treatment strategies, also called behavioral kernels,**^{1 2} that could dramatically reduce or prevent the burden of many afflictions harming the nation's children, youth and adults. These strategies could save untold physical, health, emotional, and financial pain among families, businesses, and communities.

If such simple, low-cost or no-cost, proven strategies or kernels exist, should their access be limited to scientific journals or should they be made available and known to every American to help themselves, their loved ones and their neighbors?

There are over 50 such no-cost or low-cost evidence based kernels,^{1 2} and the list is growing each day as other scientists understand this break-through in thinking.³ These kernels should be known and used quickly in every American community. Low-cost or no-cost, powerful prevention strategies, are vital in an era of declining resources and increasing needs.

Children, youth, adults of all ages, families, neighbors, organizations of all types (schools, faith-based, advocacy, charitable), small and large businesses as well as governments at all levels should participate in the spread of these low-cost/no cost prevention ideas, which we call *The Simple Gifts Initiative*TM. The *Simple Gifts Initiative*TM promotes the use of low-cost or no-cost, scientifically proven and wisdom-tested kernels that improve well-being and prevent multiple causes of morbidity and mortality at a measurable population level.

This bold *Simple Gifts Initiative*TM is rooted in unifying concepts, definitions and foundational ideas outlined below:

- **Prevention Can Be Achieved for Many or Most by Simple Strategies** — Simple kernels of behavioral influence can prevent or alter the course of many afflictions, disorders and diseases at little or no cost. Familiar examples include tooth brushing or hand-washing that affects diseases; less familiar examples that will be promoted by the *Simple Gifts Initiative*TM can significantly help prevent substance abuse, violent crime, mental illness, school failure, cancer, and heart disease.
- **Prevention Must Be Universally Accessible, Affordable and Multi-Level** — Individuals must be able to self-regulate their use of as much or little of prevention strategies as they might need using principles of self-regulation and self-sufficiency. Some individuals might choose to adopt a prevention practice from a media ad, others might engage in self-help, others might seek some simple advice, others might participate via Internet or the phone, and others might access prevention through groups.

** "Evidence-based kernel" is the generic, scientific name for experimentally verified fundamental units of behavioral influence technology, which come in four basic types: antecedent, reinforcement/consequences, relation frame (cognitive/linguistic), and physiological.

- **Prevention Needs to Be Popular**—Everybody of every age and social group in the population needs to engage in daily prevention acts.
- **Public Health and Safety Benefits involve Population Level Change** — Major causes of morbidity and mortality like substance abuse, mental illness and crime measurably affect the whole population; their prevention must involve population level change.
- **Population-Level Prevention Needs to Be Multi-Outcome Focused NOT Just Single Silo-Program Focused** – The human and financial costs of prevention for all are, too often, being driven up by excessive silo or program topic focus, rather than outcome focus. By identifying and promoting low-cost or no-cost strategies that have multiple outcomes, the United States can achieve reductions in multiple, related afflictions (called “syndemics” by the US Centers for Disease Control). A corollary is that the proven low-cost or no-cost prevention strategies, referred to as behavioral kernels in the scientific literature, have robust experimental and epidemiological evidence supporting their use.
- **Proven Prevention Cannot Be Rationed** — Essential preventive actions that assure well-being and reduce morbidity and mortality should not be rationed. For example, our society does not ration the practice of hand-washing to prevent disease or childhood vaccinations. If a proven, low-cost or no-cost practice prevents major causes of illness or death such as substance abuse or mental illness it is morally and politically unacceptable to limit its use or access to only some groups, neighborhoods, communities or counties.
- **Proven Prevention Should Not Be Vetoed by Others** — Evidence-based kernels, by definition, can be easily adopted, implemented and maintained by individuals to improve well-being of themselves or people they care about. Gatekeepers who veto access by individuals to proven prevention kernels harm public health and safety.
- **No One Profession or Group Exclusively Owns Prevention** — Low-cost and no-cost prevention means that individuals and groups from all walks of life can engage in effective prevention. No one professional degree, license, or certification is exclusively responsible to conduct prevention for population level change.
- **Low-Cost or No-Cost Kernels are Culturally Competent** — Since kernels can be easily explained, modified and incorporated into everyday routines and rituals, they are friendly to different cultures, faiths, traditions and wisdom.
- **Prevention Produces Measurable Results** — Virtually all proven low-cost or no-cost prevention kernels produce measurable results, easily discerned using scientific methods that can be explained to most people. Many kernels have immediate, observable effects.

Frequently Asked Questions

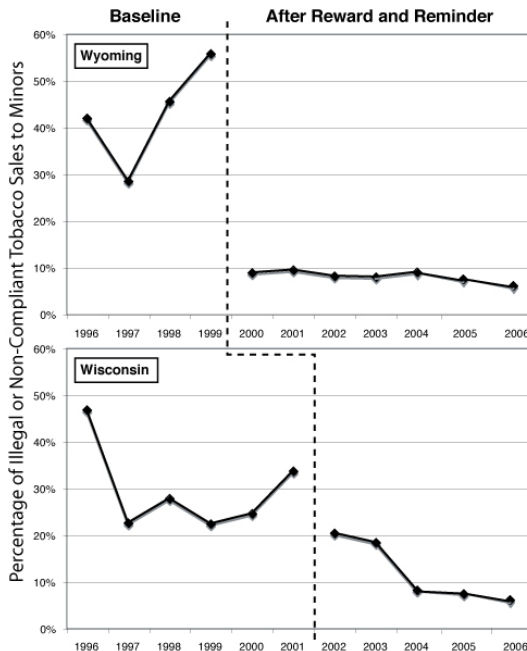
1. **What are some examples of kernels with preventive or treatment effects?** *Here are a few:*
 - *Structured, cooperative recess or playground activities, with or without adult reinforcement, reduce aggression, violence, bullying, ADHD symptoms and injuries as well as improve social competence, peer acceptance, academic achievement and BMI (Body Mass Index).⁴⁻¹³*
 - *A simple 15-minute “secret” writing exercise about deeply held values by African-American 7th grader, improves their academic success for 18 months or more.¹⁴*
 - *A recipe of several kernels, used in first-grade only, dramatically reduces lifetime problematic behavior, ADHD symptoms, oppositional defiance, conduct disorders, cocaine use, serious drug use, alcohol abuse, and increases high school graduation in multiple, randomized control group studies with long-term followup.¹⁵⁻¹⁸*
 - *A simple kernel recipe for peer-to-peer tutoring in classrooms reduces special education placement, increases social competence, reduces historic disparities, and improves academic success into adolescence.¹⁹⁻²⁹*
 - *An inexpensive contingency-management protocol dramatically improves substance abuse treatment outcomes for alcohol, cocaine, methamphetamine and poly drug use.³⁰⁻³⁷*
2. **If these low-cost prevention strategies are so good, how come more people don't know about them?** *The low cost or no cost means that there is not a compelling business incentive to underwrite the cost of TV ads, magazine ads, sales representatives, etc. that are used to successfully market highly profitable medications, procedures and programs. Further, the dissemination of kernels can take years, such as it took over 60 years for septic hand-washing to become common practice during childbirth despite the scientific evidence.*
3. **Are these low-cost prevention strategies listed in the various registries of best practices?** *In some cases, and sometimes not. The process of getting these “good housekeeping” seals of approval is expensive in time, research and labor. All the programs registered are from business entities intent on making a return on investment, which means that most of the listed programs cost between \$10,000 to \$200,000. The registries also insist on somebody being in charge of the program or research, which is not the case for kernels that are in the public domain, generic, or have many different scientists who have studied them. An example illustrates: Omega-3 (n3) or fish oil has been shown incontrovertibly to reduce or prevent not only a number of physical illnesses but also a variety of mental and behavioral disorders, with the total number of published laboratory, epidemiological and randomized control studies approaching about 1,200 as of 2007. The American Heart Association now recommends taking at least 1 gram of Omega-3 per day for cardiovascular prevention, and the American Psychiatric Association now recommends it for all persons with psychiatric disorders. There is no scientist “in charge” of this research, and fish oil is a generic product that can be obtained by*

generic supplements or 2x-3x per week consumption of oily fish species. Omega-3, despite having larger effect sizes for prevention and treatment than many “registered” programs, is not “on the list.”

4. **Are the research studies on evidence-based kernels available from scientific journals?** *Yes, and they are in multiple domains from medicine, psychology, life sciences, public health, social work, epidemiology, education and more.*
5. **Do the researchers of the evidence-based kernels have financial interests in their spread (conflicts of interest)?** *Very rarely, often because the results have been widely replicated by different investigators. Paradoxically, it is the low-level of economic incentives for the investigators that has not led to the spread of kernels in the same way as prescription drugs or programs.*
6. **Do kernels require intensive training in dose and fidelity to be effective?** *Generally not. For the most part, little training is required other than reading instructions or seeing a demonstration or testimonials. Very few kernels have rigid dose and fidelity requirements; they are not brain surgery. Most kernels are scientifically robust. That means their effects are replicable under many different conditions, which increases their validity and generalization.*
7. **Have all kernels been evaluated in randomized-control group studies?** *Some have, and others have been extensively replicated in interrupted-time series designs by many different investigators.*
8. **Can kernels be added to existing programs and practices?** *Absolutely.*
9. **Can kernels be combined for bigger or broader impact?** *Yes, and is recommended.*
10. **Can kernels be mixed and matched across age groups or settings?** *Certainly, and that is part of the “multi-level” thinking.*
11. **Are there meta-analyses of kernels?** *Yes, in some cases. In other instances, they are master’s theses waiting to happen. There are generally accepted meta-analyses procedures even for interrupted time-series studies.*
12. **Do kernels compete against evidence-based programs?** *No more than tooth brushing and flossing reduce the need for dentistry or hand-washing reduces the need for antibiotics in hospitals. Kernels work well with programs, enhance programs, operate when there is no documented program, and provide the much needed efficacy when programs are not economic, feasible or do not apply.*
13. **Can kernels be analyzed from an epidemiological or logic model?** *Yes, of course.*
14. **Why can kernels be measured more easily than most programs?** *Because they produce immediate, proximal effects in most cases. That is how they came to be selected as “cultural or wisdom” practices in many cases, besides their scientific literature.*
15. **Can the effects of kernels be measured with traditional evaluation tools?** *Yes. In most cases kernels can be measured by student, teacher, or parent surveys and reports. They can often be measured by direct observation, and by archival data already collected by communities, schools, counties and states.*

16. How can you prove kernels work locally without a huge evaluation budget?

Through something called “interrupted time-series designs” that are highly practical, easy to understand, and are effective when a randomized-control group study is not ethical, practical or desirable. Examples include media campaigns, community-wide interventions, state-wide or community-wide prevention campaigns or urgent life-saving efforts applying known strategies like vaccinations or within school type strategies.³⁸⁻⁵⁰ The graph shown is an example of “interrupted time-series” wherein two whole states received a previously proven “reward and reminder” kernel to reduce sales of tobacco to minors.⁵¹



- 17. Can local communities and coalitions mobilize kernels?** Yes, that is the idea.
- 18. How can kernels be funded?** Communities and coalitions do not need to wait for the next grant announcement. The fact that most kernels are no-cost or low-cost means that local resources can be mobilized, which might be in cash or in-kind. The fact that kernels are typically positive and universal also means that businesses of all sizes and local media will be interested in sponsoring them.
- 19. Are there examples of kernel-type, multi-level, non-curriculum prevention strategies affecting whole communities, counties or states?** Examples are provided in the reference list: for child abuse prevention and parenting skills⁵³⁻⁵⁷, for tobacco control^{51 52 58}, for alcohol and traffic fatalities⁵⁹, and for school and youth violence and/or ADHD.⁶⁰⁻⁶⁵
- 20. Are there articles in which I can read more about the theory and science behind population-level, kernel-based prevention?** Yes, and they are footnoted in the following reference section. In addition, there are some specific theoretical papers that outline key principles and origins leading to a focus on simple, low-cost approaches to achieve universal prevention goals across multiple problem areas.^{1 2 51 53-58 60-62 64 66-76}

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