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## Coordinated Initiatives Between Federal Research Agencies and Major Social Programs Can Rapidly Build Scientifically-Valid Knowledge About “What Works” in Social Policy (Education, Crime Prevention, Poverty Reduction, Etc)

In the field of medicine, public policies based on scientifically-rigorous evidence have produced extraordinary advances in human health over the past 50 years. By contrast, in most areas of social policy – such as education, violence/substance-abuse prevention, and poverty reduction – government programs often are implemented with little regard to rigorous evidence, costing billions of dollars yet failing to address critical needs of our society. However, rigorous studies have identified a *few* highly-effective social interventions, suggesting that a concerted government strategy to build the knowledge base of these proven interventions, and spur their widespread use, could bring rapid progress to social policy similar to that which has transformed medicine. This paper proposes coordinated initiatives between federal research agencies and major U.S. social programs to advance such an evidence-based strategy. This proposal could be implemented with existing federal funds and statutory authority.

**The problem: U.S. social programs are often implemented without regard to rigorous evidence, resulting in little or no progress. As illustrative examples:**

- **In K-12 education**, a vast number of interventions – such as ability grouping, smaller schools, and the self-esteem movement – have gone in or out of practice over time with little regard to rigorous evidence. Meanwhile, over the past 30 years the U.S. has made very little progress in raising K-12 reading, math, or science achievement, according to the National Assessment of Educational Progress long-term trend, despite a 90% increase in real public spending per student.
- **In substance-abuse prevention**, the nation’s most widely-used program – Drug Abuse Resistance Education (DARE), operating in 75% of U.S. school districts – has been found ineffective in rigorous studies. At the same time, government data show that the U.S. has made little overall progress since 1990 in decreasing adolescent use of drugs, alcohol, or cigarettes.
- **In poverty reduction**, the nation’s programs of public assistance for low-income Americans contain very few interventions shown in rigorous studies to be effective in reducing poverty. Meanwhile, the nation’s poverty rate now stands at 12% -- slightly *higher* than it stood in 1973 – and 33 million Americans remain below the poverty line.

**The Opportunity: Rigorous studies – particularly the “gold standard” randomized controlled trial – can be a key to sustained progress in social policy. Specifically:**

- A. Randomized controlled trials have identified a few highly-effective social interventions.** Although rare, their very existence suggests that a concerted government effort to build the knowledge base of these research-proven interventions, and spur their widespread use, could fundamentally improve life outcomes for millions of Americans. Illustrative examples include:
- **Nurse-Family Partnership** – a nurse visitation program for low-income women during pregnancy and children’s infancy (at 15-year follow-up, reduces children’s arrests, convictions, number of sexual partners, and alcohol use by 50-80%, compared to controls).
  - **Life Skills Training** – a low-cost substance-abuse program for junior high students that teaches social and self-management skills (reduces smoking by 20% and serious levels of substance abuse by about 30% by the end of high school, compared to controls).

- **High-quality, educational child care and preschool for low-income children** (by age 15, reduces special education placements and grade retentions by nearly 50% compared to controls; by age 21, more than doubles the proportion attending 4-year college and reduces the percentage of teenage parents by 44%). Further research is needed on how to translate these findings from ideal classroom conditions into broadly replicable programs.

Such examples of demonstrated effectiveness are rare because randomized controlled trials – the most scientifically-rigorous impact studies – are uncommon in most areas of policy. Meanwhile, careful empirical investigations show that the nonrandomized study designs that *are* often used sometimes produce erroneous conclusions and can lead to practices that are ineffective or harmful.

- B. The precedent from medicine: randomized controlled trials have produced remarkable advances.** Randomized controlled trials funded or facilitated by the NIH, FDA, and other agencies have provided the conclusive evidence of effectiveness for most of the major medical advances over the past 50 years, including: (i) vaccines for measles, hepatitis B, and rubella; (ii) treatments for hypertension and high cholesterol, which in turn have helped bring about a decrease in coronary heart disease and stroke by more than 50%; and (iii) cancer treatments that have dramatically improved survival rates from leukemia, Hodgkin’s disease, breast cancer, and many other cancers.

**The Proposal: That federal research agencies and major social programs *coordinate* efforts to carry out randomized controlled trials, so as to rapidly build knowledge about what works.**

- A. The research agencies on one hand, and social programs on the other, each supply a critical piece of what is needed to generate scientifically-valid knowledge about what works.**

1. The research agencies, for their part, supply the major research funding and expertise needed to carry out randomized controlled trials in key areas of social policy. For example:
  - Research on education and learning falls directly within the mission and expertise of the Education Department’s Institute of Education Sciences (IES) and NIH’s National Institute on Child Health and Human Development (NICHD), which together represent substantial research funding (IES - \$167 million in FY 04; NICHD - \$1.3 billion).
  - Research on violence prevention falls directly within the mission and expertise of NIH’s National Institute of Mental Health (NIMH) and DOJ’s National Institute of Justice (NIJ), which together represent substantial research funding (NIMH - \$1.4 billion in FY 04; NIJ - \$48 million). IES and HHS’s Centers for Disease Control and Prevention also fund violence prevention research.
  - Research on substance-abuse prevention and treatment falls directly within the mission and expertise of the NIH’s National Institute on Drug Abuse (NIDA) and National Institute on Alcohol Abuse and Alcoholism (NIAAA), which together represent substantial research funding (NIDA - \$1 billion in FY 04; NIAAA - \$430 million).
  - Research on welfare and related assistance for low-income Americans falls directly within the mission and expertise of HHS’s Office of the Secretary, with \$30 million in research funding in FY 04.
2. Federal social programs, for their part, fund thousands of service providers across the country (e.g., school districts, police precincts, local welfare offices), whose active participation is critical to carrying out randomized controlled trials of social interventions in “real-world” school or community settings.

**B. The coordinated initiatives would fund researchers and service providers to join forces to carry out randomized controlled trials in school or community settings.**

Here's an illustrative example to show how such a coordinated initiative might work in the area of school-based violence or substance-abuse prevention:

- One or more federal research agencies (e.g., IES, NIMH, NIDA, and/or NIJ) would launch a research initiative that awards funds to researchers specifically to join forces with school districts to carry out randomized controlled trials of promising violence/substance-abuse interventions in typical public school settings.
- Social programs in this policy area (e.g., ED's Safe and Drug-Free Schools programs, DOJ's Juvenile Justice and Delinquency Prevention Act Grants programs) would provide strong incentives for the school districts they fund to participate in these trials. As examples, such incentives might include additional grant funds, a competitive preference in grant competitions, or a statement that a district's participation in these coordinated research initiatives satisfies all program requirements for evaluation.

Such coordinated initiatives would provide a strong incentive for the researchers on one hand and the school districts on the other to join forces to evaluate promising violence/substance abuse interventions in studies capable of producing conclusive evidence of effectiveness. These initiatives could be carried out within existing federal funds and statutory authority.

**Conclusion: By coordinating existing federal research and program funds, these initiatives could – for the first time – generate the knowledge needed to greatly increase government's effectiveness in addressing school failure, crime, substance abuse, poverty, and other problems that each year damage the lives of millions of Americans.**