February 16, 2018

The Honorable Orrin Hatch
Chairman
Senate Committee on Finance
Washington DC 20510

The Honorable Ron Wyden
Ranking Member
Senate Committee on Finance
Washington DC 20510

Dear Chairman Hatch and Ranking Member Wyden:

I am writing in response to your February 2, 2018 letter regarding the nation's opioid epidemic and your request for policy recommendations that could be implemented by programs within the Finance Committee's jurisdiction. The primary recommendation of this response is that the federal government launch a wide range of demonstration projects within Medicare, Medicaid, and human services programs that focus on a central goal: *systematically building the body of opioid use prevention and treatment strategies that are backed by credible scientific evidence of sizable, sustained reductions in opioid use*. Government funding for efforts to address the opioid epidemic should not wait on the development of this evidence, but rather should be guided by such evidence as it develops so as to maximize the effectiveness of the federal investment. The following outlines the reasons for this recommendation and specific ideas on how to implement it effectively.*

Problem:

Credible scientific evidence about "what works" is a critical missing piece in the nation's efforts to address the opioid epidemic. Despite the great need for effective prevention and treatment strategies ("interventions"), there is little credible evidence about which available interventions are capable of producing meaningful, sustained reductions in opioid use. Interventions backed by such evidence do exist (examples are discussed below), but there are few. To illustrate the paucity of rigorous evidence:

- A 2017 systematic evidence review by the respected Cochrane Collaboration of interventions to reduce prescribed opioid use in patients with chronic pain found only a few rigorous studies, and they produced mixed findings.[1] The review determined that: "No conclusions can be drawn from this small amount of information. Therefore, it is not clear whether these treatments decrease the amount of opioids in adults with chronic pain ..."

- A 2014 Cochrane review of buprenorphine maintenance—one of the more widely-used medications for opioid dependence—found only four rigorous placebo-controlled studies examining effects on opioid use, all of which had follow-up periods of 12 months or less.[2] Thus, it is not yet known whether this common treatment has a sustained effect on opioid dependence.

- Based on the Social Programs That Work initiative,[3] which systematic monitors the research literature on school-based substance-abuse prevention programs, only one such program has been found in a rigorous evaluation to produce sizable effects on opioid use that are sustained through the end of high school (the PROSPER intervention, described below).

Without such evidence, it is unlikely that the nation's major investment in initiatives to address the opioid epidemic will produce the hoped-for effects. The reason is that, unfortunately, most

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* The views in this letter draw on my experience in various evidence-based policy organizations since 2001, and I am therefore sending it in my personal capacity rather than as a representative of the Laura and John Arnold Foundation.

interventions are found to produce disappointing effects when they are ultimately evaluated in scientifically-rigorous studies—a pattern that holds across various fields where rigorous evaluations are conducted, such as social policy, medicine, and business.[4] Illustrative examples of disappointing findings in substance-abuse policy include:

- Drug Abuse Resistance Education (DARE)—a widely-implemented school-based substance abuse prevention program—has been found in well-conducted randomized controlled trials to produce no significant effects on alcohol, tobacco, or illicit drug use.[5]

- The 2014 Cochrane review of buprenorphine maintenance (described above) found that buprenorphine had no significant effect on opioid use in placebo-controlled studies when delivered, as it often is, in low or medium doses. (It was effective in high doses, although as noted above, the studies only measured short-term effects.)

- A recent well-conducted randomized controlled trial of extended-release naltrexone—a medication for opioid dependence approved by the Food and Drug Administration in 2010—found a sizable short-term effect on opioid use that unfortunately faded to zero in longer-term follow-ups (52 weeks and 78 weeks after random assignment).[6]

A Way Forward:

Rigorous evaluations—including gold-standard randomized controlled trials (RCTs)—have identified a *few* interventions with meaningful, sustained effects on opioid use and related outcomes. Although such interventions are rare, their existence suggests that a concerted effort to grow the number of research-proven interventions, and spur their widespread use, would be an effective strategy to address the opioid epidemic.

Illustrative examples include:

- **Recovery Coaches for substance-abusing parents who have temporarily lost custody of their children.** A large, well-conducted RCT of this program, which provides case management services aimed at engaging the parents in treatment, found a 15 percent higher likelihood of family reunification and a 29 percent lower likelihood of mothers delivering a substance-exposed infant over a three- to five-year follow-up period, compared to the control group.[7]

- **Methadone maintenance as compared to buprenorphine/naloxone maintenance.** A recent large, well-conducted RCT comparing the effectiveness of these two types of medication-assisted treatment for opioid use found a sizable advantage for methadone. Specifically, 32 percent of the methadone group tested positive for opioid use versus 43 percent of the buprenorphine/naloxone group over a study follow-up period that averaged 4.5 years.[8]

- **Emergency Department (ED) care coordination to reduce opioid prescriptions.** A recent well-conducted RCT found that this program, in which hospitals in the Tri-Cities area of Washington state coordinated efforts to reduce opioid prescriptions to frequent ED users, halved the number of such prescriptions and reduced the number of ED visits by about 35 percent at approximately the one-year follow-up, compared to the control group.[9]

- **Promoting School-community-university Partnerships to Enhance Resilience (PROSPER).** A well-conducted RCT of the PROSPER system, in which universities partner with community

teams to implement evidence-based programs for preventing youth substance abuse, found community-wide reductions of 10 to 35 percent in illicit drug use initiation at the study follow-up 6.5 years after random assignment, compared to the control group. [10]

I would like to note that the above research findings, while highly promising, need confirmation in replication RCTs in order to have a high degree of confidence that these interventions would be effective if implemented in new jurisdictions or on a larger scale.

Specific Recommendations:

1. **The federal government should launch a wide range of demonstration projects aimed at systematically building the body of research-proven interventions for addressing opioid use.** Congress and the Department of Health and Human Services (HHS) have often authorized or launched demonstration projects within Medicare, Medicaid, and human services programs, aimed at addressing important policy priorities, and have sometimes waived provisions of law or regulation to facilitate such demonstrations. Given the urgency of the opioid crisis, the federal government should launch a broad set of demonstrations:

    - **That expand the delivery of interventions that are backed by promising prior evidence of effects on opioid use.** Given the challenges in identifying truly-effective interventions, it would be important to use prior evidence as a main criterion in selecting interventions for expansion, in order to increase the odds of a successful demonstration.

    - **That include a rigorous evaluation—wherever feasible, an RCT—to measure the impact on opioid use and other important outcomes (*e.g.*, family reunification, healthcare costs).** Since short-term effects often diminish or dissipate over time (as with naltrexone, described above), it would be important that the evaluations with positive short-term findings be continued long enough to determine whether there is an enduring effect.

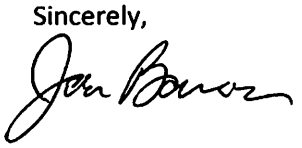
2. **For interventions found in these demonstrations or other rigorous studies to meet the highest standards of evidence, HHS should be authorized to greatly expand their delivery,** while ensuring close adherence to the proven approach. This could be done, for example, by allowing programs such as Medicare, Medicaid, and Title IV-E Foster Care to cover the cost of such expanded delivery.

Conclusion:

Such demonstrations, by building the body of interventions rigorously shown to reduce opioid use, would provide the critical knowledge that the nation needs to effectively combat the opioid crisis.

Thank you for the opportunity to share these recommendations. I would be happy to discuss them or answer any questions that you may have.

Sincerely,



Jon Baron
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