Eric Linskens: And thank you, everyone, for joining today. So, the focus of this presentation is on a systematic review on Population and Community-Based Interventions to Prevent Suicide. This work was done through the Evidence Synthesis program; specifically, here at the Minneapolis ESP site.   
  
To introduce myself, I’m Eric Linskens. I’m a member of the Minneapolis ESP team and served as the Project Manager on this review.  
  
Before getting starting into the specifics of the review, I want to take some time to acknowledge all those who were involved and contributed to this work. I’ve shown on this slide there were ten authors on this review. Dr. Shahnaz Sultan was the Principal Investigator; Dr. Timothy Wilt is the Minneapolis ESP Center Director. Both of them are clinicians with many years of experience and expertise in Evidence Synthesis methodology.  
  
There were also four co-investigators on this project with backgrounds in Clinical Psychology and Implementation Science. And there were also four Research Associates.  
  
Would also like to acknowledge the operational partners on this review. Operational partners on ESP reviews are system-level stakeholders who have requested the report to inform decision-making. They serve a number of different roles and provide input throughout the project, including recommending TEP members; assuring relevance to the VA; helping develop and approve final project scope and timeframe; provide feedback on draft report; as well as provide strategies for report dissemination. The three partners on this review were Dr. Robert O'Brien, Dr. Terri Gleason, and Dr. Lauren Denneson.  
  
On this call today, Dr. Terri Gleason and Dr. Lauren Denneson are on the call as discussants and will be providing some comments after I go through this slide set of the review findings.  
  
Lastly, would like to acknowledge those who served on the Technical Expert Panel - the TEP, as we refer to this group. They provide a number of different kind of content input throughout the project, including during the topic refinement stage, as well as, as we go through the project and were also invited to review the draft report.   
  
So, the four members of the TEP are shown on this slide. Three of them are affiliated with the VA and one provided a perspective from outside of the VA. So, we want to thank both the TEP, as well as the operational partners, for their input and engagement.  
  
So, as a discloser, this work was funded by the Department of Veteran Affairs, VHA Health Services Research and Development. The findings are those of the authors and no authors on the Evidence Review team have any conflicts of interest.  
  
So, as mentioned earlier, this review was done through the VA Evidence Synthesis Program so, I’d like to provide an overview of the ESP program. It was established in 2007. The program provides tailored, timely, and accurate evidence syntheses of VA-relevant, Veteran-focused healthcare topics. These reports help develop clinical policies informed by evidence; implement effective services and support VA clinical practice guidelines and performance measures; and set direction for future research.  
  
There are three ESP centers across the US. All of them have directors who are VA clinicians and recognized leaders in the field of evidence synthesis, who also have close ties to the AHRQ EPC Program and Cochrane Collaboration.  
  
There’s an ESP Coordinating Center located in Portland. They manage national program operations and interface with stakeholders. They also produce rapid products to inform more urgent policy and program decisions.  
  
To ensure responsiveness to the needs of decisionmakers, the program is governed by a Steering Committee comprised of health system leadership and researchers.   
  
And lastly, the topics can be nominated several times a year via the program website.   
  
Briefly, here’s a map of the different ESP Center locations; Minneapolis, Los Angeles, and Durham, with a Coordinating Center located in Portland and HSR&D in Washington, DC.  
  
Okay. Now, the remainder of this slide show is going to focus on the current report; Population and Community-Based Strategies to Prevent Suicide. This work began in March of 2020. Our projects take about one year to complete so, we wrapped up in mid-February of this year. The full-length report will be available on the ESP public website, the link shown here. There’s a period of time after we complete the review where we are aiming to publish manuscripts where it’s only available on the VA intranet site.  
  
And to give you kind of a what’s ahead in this presentation and kind of a spoiler of results, we found that several interventions may reduce suicides. We also found that many others have unclear evidence, or we’ve found no evidence, and that there were inconsistent findings for multi-strategy interventions. So, now, as I go through this presentation, I’m going to walk you through how we got to those conclusions.  
  
So, as a background, put in very plain language, suicide prevention is a very important priority. I think folks on the call are aware of that and that’s why you’re listening in. But I’ve listed some statistics from 2018 to convey the severity of this issue. In 2018, suicide was the tenth leading cause of death in the US with 48,344 suicides. And unfortunately, Veterans are disproportionately affected by this. In that year, Veterans comprised 8% of US adults but accounted for around 14% of suicide deaths.  
  
And as a segue into population- and community-based strategies, multiple efforts by multiple offices have generated initiatives calling for a public health approach to prevent suicide. And this includes suicide prevention plans put forth by the World Health Organization, the US Office of Surgeon General, and the VA.  
  
So, when we do these reviews, our work and our final report is really guided by the key questions we’re trying to answer. In this report, we had two main key questions. The first one shown here; what are the effects of population- and community-based prevention interventions on suicide attempts and suicide deaths?  
  
Then, we had three sub questions. What are the key common components of the most effective interventions? What strategies have been used to deliver, sustain, and improve the quality of the most effective interventions? Then, an effect-modifier question; how do the effects vary by differences in community setting and characteristics of individuals?  
  
And then, we had our second main key question, which got at the harms. What we called; what are the potential unintended consequences of population- and community-based prevention interventions?  
  
So, getting into the methods of our review, we did a literature search from 2010 through November 2020. We felt this would provide new, updated, and relevant information. Then, we look through the studies that our search strategy picks up during that time period to identify the studies that meet our eligibility criteria. I’m going to provide more detail on the eligibility criteria on the next slide. But from a big-picture standpoint, the group here discussed what was meant by community-based interventions. And, ultimately, we defined it by what it was not in that we’d excluded interventions in healthcare settings and excluded interventions we considered to be clinical interventions, including pharmacotherapy and psychotherapy. Our primary outcome was suicide deaths.   
  
Then, once we identify the studies that are eligible, we appraise the quality of them, something in evidence synthesis, the language we use for that is, “the extent of risk of bias” each study has. And for those unfamiliar with this, it’s really getting at how confident or how truthful we think, or how much can we trust, the results from an individual study.   
  
And we have specific tools that we use to assess risk of bias often unique to the study design. So, we had one tool to assess quality of randomized trials and one tool to assess quality of non-randomized trials - or observational studies, excuse me. And we rate each study to be at low, moderate, or high risk of bias. And to focus on the best available evidence, we did not analyze studies rated to be at high risk of bias.  
  
Then, the next step in the process is to look across studies to derive conclusions. And we did this using the GRADE framework to assess the certainty of evidence. I won’t get too far into the weeds on what GRADE is. But to provide some insight, GRADE places greater trust or certainty in information that comes from randomized trials and lower certainty in information coming from observational studies. It also considers things like consistency of results across studies, as well as the directness of evidence and the preciseness of results.   
  
So, moving to our specific inclusion criteria, we often do this by defining the relevant PICOT. So, the column here shown on this slide, you’ll see that “PICOT” is referring to Population, Intervention, Comparison, and Outcomes. We’ve also defined Timing, Setting and Study Design.   
  
So, for this review we included the population of Veteran and non-Veteran populations of high school age or older. The relevant intervention was population- and community-based strategies. We required a comparison of either pre versus post or an intervention versus a concurrent control group.   
  
The suicide outcomes we included were suicide attempts and suicide deaths. We did not include suicide ideation.   
  
The possible unintended consequences, which mapped to our Key Question 2 about harms, were stigma towards suicide, caregiver burden, and switching suicide means.   
  
We did not require any sort of minimum followup period.   
  
A variety of settings were eligible for the review including schools, workplace, military settings, prisons, suicide hotspots, and the general public.   
  
As a group, we also discussed how to find or focus on evidence most applicable to the United States. And as a result, we only included studies conducted in countries with a Human Development Index of very high.  
  
And lastly, we included both randomized and non-randomized studies while acknowledging for an observational to be included, it had to meet our comparison requirement noted above.  
  
So, this is our literature flow diagram. This is kind of a classic figure for systematic reviews, which walks through this search and triage and screening process from the top to the bottom. I won’t go through each one of the numbers but to give you kind of a big-picture sense of the process, we looked at five different databases, shown in the first row. Then, we removed the duplicates to get to 4,499 titles and abstracts to screen. We ultimately looked at the full texts of 690 articles in which two people at that stage have to review - or have to agree - on an inclusion or exclusion decision, which resulted in 69 eligible articles.   
  
After removing the articles that were rated to be high risk of bias and focusing on the unique studies, that left us with 47 unique studies that met our analysis criteria. So, that’s the most important number. That’s the one in bold in the red box. And that’s what formed our evidence base as we moved forward with our analysis.  
  
So, as you can likely imagine, there are number of different interventions under the umbrella of population- and community-based strategies. So, in order to make sense of the interventions and meaningfully group them, we categorized the studies and interventions into the CDC framework for suicide prevention. Do want to note that we modified the existing CDC framework so that it was more relevant for the current review but I want to orient you to this framework because there’s a bit of a hierarchy.  
  
So, the text in purple with shading indicated by these arrows were the five relevant CDC suicide prevention strategies relevant for this review, which include strengthen economic supports; create protective environments; promote connectedness; teach coping and problem-solving skills; and identify and support people at risk. And each one of those strategies has more specific suicide prevention approaches, which can be used to achieve that strategy. And these more specific approaches are noted in bullets under each strategy.  
  
So, for instance, if you look at “Create protective environments,” the CDC framework notes that reducing access to lethal means; organizational policies and culture; and community-based policies to reduce excessive alcohol use, are all exampled approaches under this strategy.   
  
So, I’ve provided a couple of examples to help show how we moved from the individual studies themselves to these categories. So, this was an eligible study on the installation of a bridge barrier in Canada and this was something that we grouped as reducing access to means, which was the function of the barrier.   
  
Here’s a second example of a Suicide Awareness Campaign in Austria called, “Reasons to Love Life.” And this was something that we grouped as a public awareness and education campaign.  
  
So, now, this slide and the next are going to show a table that shows, in totality, the studies that were included in that analysis criteria and how they were categorized based on interventions shown in the first two columns - again, the CDC strategy and then, the more specific approach.   
  
This table is also going to show the setting where the studies took place. You’ll see the different labels there - Hot spots, General Community, Workplace, etc. It’s also going to show what outcomes were reported, which is indicated by the “S,” referring to suicide deaths and “SA,” referring to suicide attempts.  
  
Lastly, it’ll also show the study design of the studies shown in the figure at the bottom of the slide; the diamond being randomized controlled trials; square for observational study with the concurrent control; circle for observational studies with only pre-post data; and there’s an underlying under the shapes to indicate if a study reported both suicide deaths and suicide attempts.   
  
So, I acknowledge this is a lot of information and you’re likely seeing this table for the first time. So, I’ll do my best to identify some themes and big-picture messages from this table.   
  
So, you’ll see many rows don’t have any shapes in any of the cells and this indicates we found no studies and it’s an everything gap. So, for instance, the row for Household financial security or Community-based policies to reduce alcohol use; Peer norm programs; Community engagement activities; and Parenting skills and family relationship approaches; for all of those, we found no studies.   
  
If you look at the Housing stabilization row, the second row down, we found one observational study with a concurrent control in veteran populations that reported both suicide deaths and suicide attempts.  
  
Also, want to note we found many studies that were categorized as reducing access to lethal means; all of them were observational. Many took place at suicide hot spots and three of them took place in the general community.   
  
Looking at the next row down, we found four studies that took place at an organizational level looking at policies and culture; two of them in workplace settings and two of them in military settings.  
   
Also, want to note that we, in general, we found very few randomized trials but we did, however, find several that looked at social-emotional learning programs. So, one randomized trial in a construction setting and two randomized trials of social-emotional learning programs in high school settings. One of them reported suicide deaths and both of them reported suicide attempts.  
  
So, this slide is a continuation of the table, showing the studies we found for the CDC strategy; Identify and Support At-Risk Individuals with the respective four approaches that are under that category. So, you’ll see for gatekeeper training, we found one study in the general community; one RCT in high schools; and one RCT in indigenous community. And we found one observational study for Crisis intervention, two observational studies for public awareness and education campaigns; and then, for screening for at-risk outside of a clinic setting, we found two observational studies in the general public; one RCT in high schools and one observational study in prisons.   
  
I do want to point out here that this slide and the last is really getting at where the information was but not yet our conclusions or findings based off of that information, which I’m going to get to now.  
  
So, I’m going to structure our findings first by pointing out which interventions we believe may work. And the reason I’m using the word “may” is because it conveys our certainty of evidence in the findings in that we use “may” when our certainty of evidence is low. If the certainty of evidence was moderate, we would use the word “probably.” If the certainty of evidence was high, we would not qualify our findings.  
  
So, going through this now, we found that reducing access to lethal means may reduce suicide deaths. Specifically, when installing barriers at bridges and railway stations, we found a reduction - or they may be a reduction - in suicide deaths at those locations after installing the barriers.  
  
We also found that in Asian countries where charcoal burning had emerged as a suicide method, that programs to restrict access to purchasing charcoal may reduce the number of suicides by charcoal burning.   
  
We also found that organizational policies and culture in police workplace settings may reduce suicide deaths. And this was based off of one observational study in Montreal Police where they evaluated a program called, “Together for Life.” In that study, there was a reduction in suicide deaths in the police officers that received the program and no difference in police officers nearby who did not receive the program.   
  
Lastly, we found that screening for depression in the community may reduce suicide deaths. This was based off of two observational studies in Japan.   
  
Now, I’m going to move to the interventions where we found information but our conclusion was that the effect of the intervention on suicide deaths was unclear. And this is because we rated the certainty of evidence to be very low. This is a bit of a list but I’ll walk through them.  
  
So, this includes unclear evidence for housing stabilization programs; installing blue LED lights on railway platforms; organizational policies and culture in construction workplace settings and military settings; unclear evidence for social-emotional learning programs; unclear evidence for crisis intervention; as well as for gatekeeper training; public awareness and education campaigns; and also, screening in high schools and prisons.   
  
To provide some transparency about how we got to very low certainty, many of these interventions listed on this slide and the last were informed by observational studies, meaning our certainty in them is already at low.   
  
And then, many of them had additional study limitations; if the study did not use a strong control group or if it did not adequately adjust for confounding variables.   
  
We also found that results in these studies were often precise either due to no events occurring in the trial period in both the intervention and control group; or if the results were non-significant, which a little bit in the methods weeds. But our way of rating precision and certainty was based off of statistical significance.   
  
So, there’s one category of interventions that I have not introduced yet and these were multi-strategy interventions that included, as you can infer, more than one CDC strategy within a given intervention. And we found fifteen of these studies. The components of them vary, which made it challenging for us to standardize what the components were across them. Because there were sometimes inadequate description of the components or inconsistent language around what the components were.  
  
But to give you a sense and some examples of what these multi-strategy interventions were, they include national prevention programs; a variety of services provided by suicide prevention centers; an intervention in Europe called an, “Alliance Against Depression;” as well as a comprehensive intervention at a suicide hot spot in Australia where they not only installed a barrier but also, put up cameras and signs with crisis numbers, as well as adjusting landscape.   
  
And as a group, we did struggle with making sense of this information because the number and what the components were varied. But in order to derive conclusions, we stratified the results by the region they were implemented. And the reason we did this is because we found some commonality in these multi-strategy interventions within a given region.  
  
So, I’ve provided some screenshots of the multi-strategy interventions. This article shown here was one of the studies looking at the European Alliance Against Depression when it was implemented in evaluating four European countries where there were intervention regions and control regions in each country.   
  
A second screenshot of another multi-strategy intervention; this one looked at the implementation of national suicide prevention policies in South Korea, some of which were implemented in 2004 and thereafter. And then, another set of policies implemented in 2009 and thereafter.  
  
So, what did we find on these multi-strategy interventions? Well, I’ll go through region by region.  
  
So, first, in Europe where there were four observational studies looking at the European Alliance Against Depression in which there were four to five components, which included physician education; public relations campaign; training of community facilitators; support for high-risk; and restrict access to means was a fifth component that was added when the program expanded to more countries. And our conclusion was that this intervention may decrease suicides at low certainty evidence.  
  
Next, in New Zealand, we found one cluster RCT, which was a multi-strategy intervention with the following components; gatekeeper training, working with media to report suicide using best practices, distribution of resources, workshops, and other community events. We found low certainty of evidence that this intervention and this study may - or the intervention reported in this study - may increase suicides. And we concluded this because there was an increase in point estimate in the intervention region relative to the control region. And as you can see, there were then inconsistent results if you look in the Europe and New Zealand study, or across them.  
  
And for conciseness, I haven’t listed all of the information for the multi-strategy interventions in Australia and Asia. But from those interventions and studies, we concluded unclear evidence if and how they impact suicide deaths. And this was often related to study limitations and imprecision.   
  
So, our limitations for this evidence; as a review team, there were a number of reasons why this was a very challenging literature base to synthesize. I’ve listed several reasons here.   
  
First; the suicide outcome was reported in different ways across studies, sometimes on a per 100,000 basis. Other times, reported as a relative statistic. And also, in considering that there were different study designs, we were then unable to formally pool or conduct a meta-analysis but instead, our results were a narrative summary of the individual study findings.   
  
Also, some interventions were poorly described. This was more of a problem for multi-strategy interventions where there were often many components and inadequate description of some of the specific components, which we feel limits some of the applicability and replicability of the findings.  
  
Also, as I’ve noted, they were mostly non-randomized studies. And when you think about the fact that a lot of these studies were non-randomized and were also dealing with population- and community-based strategies, it can become hard to isolate the effect of the intervention in the absence of a strong control group or appropriate adjustment for confounders.  
  
Also, noting that fortunately, suicide is a rare event. However, this does cause some challenges in studying it and we noticed that some studies were not adequately powered. And some of the studies that did have a larger sample size, there was short followup period.  
  
And lastly, certainty of evidence was mostly very low or low.  
  
Okay, so, back to the take-home messages that I want to leave you with. We found that select community-based interventions may reduce suicides. This was at low certain of evidence and this includes the interventions of reducing access to lethal means, implementing organizational policies in workplace settings, screening for depression in the community.   
  
It is uncertain, or there was no data, if many other single-strategy interventions are effective. We also found inconsistent evidence for multi-strategy interventions, as you recall from the slide showing that in Europe, there was a decrease in suicides; in New Zealand, we found an increase in suicides; and then, unclear evidence in Australia and in Asia.   
  
And we believe that future studies using randomized designs would help advance understanding of suicide prevention. We also acknowledge that’s a very easy statement for us to say and randomized designs may not always be ethical or feasible. So, in the absence of that, we believe that observational studies with a strong control group and appropriate adjustment would also advance understanding of suicide prevention.  
  
So, with that, that takes me through the overview of the evidence report and I would now like to hand it off to Dr. Terry Gleason and Dr. Lauren Denneson for their comments.

Terri Gleason: Yes, good afternoon. This is Terri Gleason. And I wanted to thank Eric, first of all, for walking through that very interesting presentation and, also, the Evidence Synthesis Program for pulling all this data together for us. I think it’s foundational. Interventional research is foundational to setting up strong everything for knowing what works, and what could work. And also, if the evidence base is sufficient to extend into practice and change care.   
  
So, the type of review that was just reported on is really, really important to help us know the answers to those types of questions and understand how much work we have in front of us in terms of turning over more clinical trials, more research is needed, to strengthen the evidence base, especially on the topic of suicide prevention. It’s just so critical.  
  
So, I think the team did a very good job in presenting this, pulling all this information together, and then, offering it to the community. I mean, now, it seems like it’s back on us to take these results and move forward from them.  
  
So, considering the across-the-board conclusion that evidence is low, we really need to put our heads together and try to come up with some interventions that are more successful and especially focused on our Veteran population.  
  
So, really important topic. I very much appreciate the results. I feel like we may use it as a guidebook in VA research where we actually have quite a few funding mechanisms available across the entire spectrum of research. And we have published and, hopefully, promoted a high degree of interest in supporting even more research to prevent suicide.   
  
So, this topic is challenging, the literature review was challenging, the clinical trials are challenging, and the problem is challenging. You laid that all out in front of us. And I really hope we can turn around from reports such as this and work together to improve the situation. And I would love to talk to anyone further about ideas about expanding the research evidence base that was just presented.  
  
So, with that, really, thank you again. I’d like to turn over to Lauren.

Lauren Denneson: Hi, everyone. Thank you, Terri. This is Lauren Denneson and I just have to agree wholeheartedly with Terri’s comments and echo my thanks to this amazing team and the TEP panel for working through a literature topic that is not an easy topic to get through, as Eric kind of hinted at. This literature can be very unwieldy and difficult to put into the boxes, as you would say.   
  
But the TEP panel and the team in Minneapolis did an amazing job sort of hawking through what are our inclusion-exclusion criteria and kind of what is the goal and the end game that we want to learn from this report. And I think the end product ended up being really successful and, in fact, in SPRINT - in the Suicide Prevention Research Impact Network - we’ve already used it to state some of our priorities for the upcoming year.  
  
And I also just want to note that just like Terri mentioned, you know, this report really reinforces the fact that there’s so much to be done in research and prevention in community and system levels. And the fact that there were only 47 unique studies to look at was very telling. Many of them are in sort of one-off areas where there’s not multiple studies looking at a single type of intervention or prevention method.  
  
So, we do have a lot of [sound out] in that area to grow our understanding of community-based prevention.   
  
I also wanted to just emphasize that I think that investigators who are looking at this field should consider some of the many methodological challenges to doing this work, as well. I think Eric kind of hinted at that a little bit in terms of longer-term followups are difficult and needed in this kind of work. And you know, things like measurement and reporting are challenges in this area.  
  
So, I think that if investigators are interested in doing work in growing this area, not only looking at just interventions that may be effective but, also, trying to solve some of those methodological challenges that we face.   
  
And I’d also make that same comment to funders and funding mechanisms like HSR&D and CSR&D in terms of potentially opening up a specialized mechanism to account for some of those methodological challenges.  
  
And with that, I will turn it back over to questions and Eric and whatever is next.

Eric Linskens: Yeah, yeah. I think I will hand it off to Rob. Rob, my understanding, if questions were coming in [sound distortion], or will come in, that you will read them off?

Rob: Right, we do have a few questions queued up. Let me take the opportunity to let people know; if you have questions for our presenters, please submit them to the Q&A Panel. If you don’t see the Q&A Panel, if you click on the ellipsis in the far lower-right corner, you should be able to click on Q&A there and it will turn blue and then, it will show up over here on the right-hand side.  
  
First up, this person writes; can we take it you neglect and reject all case study-based ideographic studies? If so, why?

Eric Linskens: Okay, let me digest that. In terms of case studies and thinking out what our inclusion criteria were, we required some sort of comparison and it could’ve been either pre versus post or versus a concurrent control group. So, if a study just reported on a program and then, the suicide death outcome - but you could not derive how the suicide death rates changed before and after or relative to a control group, then, we would not have included that study.

Rob: Thank you. Given the paucity of the evidence, do you have any advice for someone attempting to create a suicide intervention for a nonclinical setting; e.g., gatekeeper training?

Eric Linskens: Also, a good question. In answering these questions, I mean, I will do my best to really kind of point to what the evidence is saying.   
  
We did find, at least based on our evidence review, that for gatekeeper training as a single intervention, that we found very low certainty in terms of what effect that intervention has on suicide deaths. If I were to point, however, to interventions that were effective, those again were reducing access to lethal means; organizational policies and culture; and screening for depression.   
  
In terms of tips, however, to that person asking the question, I guess Lauren or Terri, do you have any suggestions regarding that?

Lauren Denneson: Sorry, can you reiterate more lives aspect?

Terri Gleason: This is Terri Gleason; I was just going to jump in, as well, Eric, and just mention here in VA Office of Research and Development, we have a pretty robust program for research - supporting research on suicide prevention. And you can specifically talk to our scientific portfolio managers about potential ideas. And I don’t know - I guess what I’ll do is I’ll enter my name and email in the chat, if Rob doesn’t mind, just so that you can reach out and I can provide individuals who’d be happy to speak to you about research ideas.

Rob: I certainly don’t mind if you enter your email into the chat. We do have another question queued up and I think there’s a couple that went to the chat and I’ll try to wade through the chat. But if you have questions, please try to submit them to the Q&A section - that’s the Q&A section where we prioritize. It’s difficult to wade through the chat to read the questions.  
  
This one’s a little bit long and slightly detailed, Eric, but bear with me, okay? Where incidence of suicide is relatively low, as contrasted with non-suicidal death, what innovative approaches are being investigated? Why have ACO graphic studies been ignored by professional researchers? There’s more detail but it’s not necessary to read it for the question.

Eric Linskens: Okay, I don’t think I followed all of it completely. But based on the first statement acknowledging that suicide is a rare event so, what are innovative strategies to kind of use to study it? I think that’s the essence of the question.   
  
I mean, I’ll pull from my knowledge of the literature that we found. For instance, we found a really well-done trial in Europe that was randomized and it was a cluster RCT design. So, they randomized high schools versus other high schools and as a result of that, the sample size was very large. And I think this is the kind of study design that could be helpful on a population level, while acknowledging this was actually one of the studies where I kind of noted some of the limitations of followup in that they only had one-year followup and there were no suicides that occurred.  
  
But I do think the cluster randomized design is one that could be useful in this area both because it can be done on a community scale and also, may help in terms of some of the statistical considerations around adequate power of events. I hope that answers the question.

Rob: Thank you. This is one from the chat. Any idea if this will change requirements for governmental spending on public awareness campaigns, given the lack of demonstrated effectiveness?

Eric Linskens: So, I’ll just comment there and reiterate as the question - or as that participant has posed - we did find insufficient evidence for public awareness and education campaigns. But I think Terri and/or Lauren would probably be better than me in terms of thinking on the implications of that.

Terri Gleason: Right, this is Terri Gleason again. I’ll just mention in this regard, this is a valuable use of an evidence synthesis report. So, typically, what we do is use the report and share it with our clinical partners. So, again, in VA on the clinical side, the Office of Mental Health and Suicide Prevention Program and so forth and they would use the information presented to make decisions that fall within their lane. And one of those would be exactly as the submitter was asking about them; how do you translate the report findings into decisions regarding using government resources.

Lauren Denneson: And I’ll just add, as well, but I think thinking about the fact that there’s no evidence presented in a “review” like this doesn’t mean that it’s ineffective, right? So, there’s a difference between knowing that something is ineffective versus not knowing enough information to say if it is effective. So, hopefully, that clarifies [mumbling]…

Rob: Thank you. I have another one here. To me, this says we don’t know of any effective non-medical setting program that we know works. From 1999 to 2019, the global suicides decreased by 30% but the US increased by 33%. Why?

Eric Linskens: I think I would say I don’t know the answer to that question and I don’t want to speculate. I don’t mean to put Lauren and Terri on the spot but if you have any insights to that. [Pause]

Rob: That’s all the questions we have at this time. There may be more that come in. Those people wait because they’re not sure there’ll be time for their questions. But we do have a few more minutes so, if anybody how about something they’ve been holding onto, please go ahead and submit it.  
  
Meanwhile, Dr. Linskens, if you’d like to make closing comments, now would be a good time.

Eric Linskens: Yes. Also wanted to just provide some emails for myself, as well as Dr. Shahnaz Sultan, who was the Principal Investigator on this project, and Dr. Timothy Wilt. That if you have any additional questions about the evidence review itself, that we are happy to answer those questions.  
  
Also, want to remind that the full-length report will be available on the ESP public website in the near future. And the report has all of our evidence tables and the references for all these studies, as well as the methods and the results and conclusions that I’ve iterated today.

Rob: Thank you. And if either of your discussants would like to make comments, I’ll ask Lauren first.

Lauren Denneson: No, nothing additional. Thank you.

Rob: Thank you, Dr. Denneson. Dr. Gleason?

Terri Gleason: I will just thank the team again and I’ll look forward to having the final report and all the tables, as well, because I think there’s just so much work to be done following this. Thank you.

Rob: Well, thank you all for preparing and presenting today. We did get one final comment that came in. And this person said, “This is a really well-done presentation. Thank you for sharing this.” So, thank you again.