**Meeting Minutes**

**HB 21-1317 Twelfth Meeting of the Scientific Review Council**

**July 25, 2023; 1:00 pm – 3:00 pm MT**

**General Remarks and Welcome:**

* Dr. Chris Urbina, Chair of the Scientific Review Council (SRC), called to order the twelfth meeting of the SRC on July 25, 2023, at 1:00 pm MT.

**Scientific Review Council Introductions and Update on Conflicts of Interest:**

* The Chair conducted a roll call for both the Council and the Colorado School of Public Health project team members.
* The following Council members were present and introduced:
* Chris Urbina
* Joseph Schacht
* Kennon Heard
* Kent Hutchison
* Erica Wymore
* Greg Kinney
* The following Council members were absent:
* Archana Shrestha, with advanced notice and apologies
* Susan Calcaterra, with advanced notice and apologies
* David Brumbaugh, with advanced notice and apologies
* Paula Riggs, with advanced notice and apologies
* Lesley Brooks, with advanced notice and apologies
* The following SPH team members were present and introduced:
* Jonathan Samet
* Lisa Bero
* Christi Piper
* Valerie Yim
* Neeloo Soleimanpour
* Louis Leslie
* Christi Piper
* Jean-Pierre Oberste
* Thanitsara Rittiphairoj
* Meghan Buran
* Sheana Bull
* Paige Buchanan-Hall
* Ashley Brooks-Russell
* The following SPH team members were absent:
* Greg Tung, with advanced notice and apologies
* Tianjing Li, with advanced notice and apologies
* Jenn Leifermann, with advanced notice and apologies
* Charlene Barrientos Ortiz, with advanced notice and apologies
* Changes to COI forms for any Council members
* None

No questions for Chair Chris Urbina.

**Review of Agenda, Meeting Minutes, Charge to the Colorado SPH, and Recommendations to the SRC:**

* Chair Urbina reminded everyone in attendance that meeting minutes and the response to SRC recommendations are available on the project website under the resources tab.
* Chair Urbina reviewed the agenda with the Council.
* Agenda shown on screen for the panelists (Council and Colorado SPH) as well as public attendees.

No questions for Chair Urbina.

**Overview Progress from the Cannabis Research & Policy Project:**

* Dr. Jonathan Samet presented the objectives of today’s meeting including an update on the overall progress from the Cannabis Research and Policy Project and a discussion on the general approach and progress with the educational campaign. Dr. Samet made the attendees aware that the published report is available on the website.
* Dr. Samet highlighted the report on the scoping review was submitted in April 2023 to the legislature. Since then, we provided a press release with relatively limited coverage on the scoping review, but it is publicly available. The team has started working on additional publications for dissemination, including a submission to the American Journal of Public Health, a group who is enthusiastic about our work and will direct readers to the Tableau Dashboard. We are sending back a revised copy of the paper based on reviewer feedback.
* Additionally, a paper regarding the methodological issues and the protocol for a scoping review on mental health outcomes from the findings of HB 1317 are in progress. The team is progressing on the educational campaign and team leads (Dr. Samet and Dr. Gregory Tung) have met with Representative Michaelson- Jenet and Senator Hansen about our work. The team felt it was important to establish communications to ensure that the report was received and any questions answered. Team leads thought it was important to maintain communication and meeting with a group of interested legislators. Next week, the group is presenting in a panel form at the Cannabis Research Conference on August 3rd.

No questions for Dr. Samet.

**Reviews in Progress:**

* Dr. Lisa Bero broadly explained the high-concentration cannabis products and mental health outcomes – systematic review protocol. This was a review advised by the SRC and follows the HB 1317 charge to proceed with additional systematic reviews in areas where sufficient data was identified. The protocol is in progress, and it is close to being finalized. The Cannabis Research and Policy Project team is receiving consultation from Dr. Paula Riggs as she provides her expertise in this area. Once ready for publication, the protocol will be made available to the SRC for comment. The systematic review is focusing on the following outcomes: psychosis (occurrence and age of initial onset), schizophrenia, anxiety, depression, cannabis use disorder, and other substance use disorder. These outcomes were derived from the pool of studies with data on these topics in the scoping review evidence map. We are pulling studies from the scoping review; 59 randomized control trials and 97 observational studies with at least one mental health outcome was reported including some association and quantitative data between high-concentration cannabis exposure and outcomes of interest. There may be multiple outcomes studied within each publication as documented in the scoping review. Additional data aside from what is published in the evidence map will be extracted for this specific systematic review, including but not limited to the quantitative results, the conclusions of the studies and information needed to complete Cochrane’s risk of bias assessment and Newcastle-Ottawa Scale for the observational studies to assess their risk of bias. Since this is a systematic review, we address the risk of bias of the included studies, which may be synthesized either by meta-analysis or through narrative synthesis, whichever is most appropriate. The conclusions will also have a GRADE assessment conducted, grading the certainty of our conclusion. We have some a priori groupings of studies including stratifying by study design, populations with pre-existing mental health condition versus those who do not. We may proceed with a grouping of any a priori studies that show an association of high-concentration cannabis use against one of the identified outcomes and any factors that may contribute or modify the association. Once the protocol is published, it will be available for review.

Question and Answers

* Chari Urbina inquired if the protocol Lisa discussed would be published in the literature or will it be posted on the website.
  + Dr. Bero responded that it will be available in both locations.

No further questions for Dr. Bero.

* To support the education campaign, the Cannabis Research & Policy Team is proceeding with Jean-Pierre and Valerie in the lead on two different reviews that relied on evidence-based best practice policy. The first review will focus on the overview of mass-media behavioral interventions to examine what is the state of the evidence in terms of mass-media interventions and behavioral outcomes specifically. Can mass media tools impact behavioral outcomes independently? Mr. Oberste provided an overview of the findings via PRISMA diagram and the general behavioral outcome categories that were identified. Mr. Oberste provided an example of a table generated through review that illustrated mass media effects on alcohol use. Overall, the review found mixed to positive effects and mass media efforts are able to have some behavioral effect. Intervention strategies on behavioral outcome at a theoretical level; however, it was not well captured in the literature. There was no clear direction of effect.
* Mr. Oberste presented the second review that is currently under way. The scoping review focuses on modern modalities in behavioral interventions. The group looked at new modalities that were introduced within the last 10-15 years and how they can be used in health communication campaigns. Can these tools be used to specifically change behavioral rather than only attitude or knowledge regarding the topic. The focus was to examine the connection and the review is currently in progress. The PRISMA diagram illustrates that the review started with 14, 592 records and 30 records remain before data extraction proceeds. About 500-600 studies are expected to be included for data extraction, pending quality check.

Question and Answers

* Chair Urbina asked what the impact of these reviews will be on the educational campaign or research going forward.
  + Mr. Oberste explained that the findings of the reviews will be implemented in the dissemination of the educational campaign and guide the strategies that will be used in the education campaign.

No further questions for Dr. Bero or Mr. Oberste.

**Educational Campaign Update:**

* Dr. Sheana Bull introduced her team and their role. Dr. Bull provided an overview of her presentation including the charge for the educational campaign in HB 21-1317, present activities and processes of their team to date, recommendations for campaign activities, and discussions regarding the recommendations.
* Dr. Bull provided a timeline of the educational campaign activities. Some of the systematic reviews are still ongoing and identifying vendors with potential to generate compelling health education content is contingent on the conversation in today’s meeting.
* Dr. Bull provided an overview of the educational team’s process to address the campaign. To develop the recommendations provided today, Dr. Bull’s team first engaged with community engagement endeavor which is an ongoing process. Dr. Bull provided a shared definition of community engagement from the World Health Organization. Dr. Bull explained the practical and philosophical reasonings for their process of producing educational campaigns. Dr. Bull emphasized the framework of the campaign including social justice and cultural integrity in hopes of making the delivered messages resonate with the intended audience. It is critical for the audiences to be engaged for the credibility of the campaigns. Not engaging communities would place the campaigns at risk. Consequently, community engagement has been given priority from the start. Dr. Bull provided an example of the risk of not involving the community in campaigns.
* Dr. Bull highlighted the work with community liaisons to invite community members to work as advisors alongside our team. Dr. Bull’s team found it important to invite liaisons who had connections to people that would be representative of the audience for the educational campaign. The work with Liaisons also helped create the appropriate agenda for meetings with community advisors and helped to identify and recruit 12 youth advisors and 11 adult advisors. Our liaisons had expertise in mental health/substance use, rural health, LGBTQIA+, juvenile justice and health care delivery, and adolescent/young adults in Denver, CO.
* The workshop workload was broken into three workshops that each lasted three hours. The first workshop focused on the introduction to HB1317, and the Scientific Review Council where Drs. Samet, Tung, and Urbina were all in attendance of. The second workshop discussed the resources that “work” in health promotion campaigns including traditional methods and 21st century strategies; Chari Urbina was able to attend in person. There are opportunities for the group to use strategies like social media, influences, and technologies to deliver health communication messaging. The third workshop focused on consensus of the recommendations provided in the prior workshop meetings for the educational campaign efforts regarding use of high-concentration THC. All youth workshops were held in person while adults met online except for workshop #2 that was held in person for both groups.
* Dr. Bull highlighted what areas our advisors represent and expressed gratitude to our youth and adult advisors. Dr. Bull stated what population our advisors represent. The youth had strong recommendations on what we should say and how we should say it, with a specific emphasis on youth mental health and self-actualization relating to life goals. The youth advisory groups specified that we focus on middle school aged youth as they are more likely to experiment at this age, using peer mentoring programs, community events, pop-up events, and social media to reach this population. They want the message to show that use of cannabis should not be misconstrued as safe, especially for the developing brain.
* The adult advisors felt that the focus should be on individuals under 21 years old where the campaign emphasizes that cannabis is not good for the developing brain and should not be misconstrued as safe. The adult advisors felt that a tool kit should be developed to assist with youths and adults to be able to communicate with one another. Additionally, they suggested building a train the trainer model to use the tool kit via trusted leaders who work with kids to teach other adults and advised utilizing social media influencers to reach a wider adult audience.

Questions and Answers

* Chair Urbina asked the group if they had any questions or comments they wanted to pose.
* Dr. Erica Wymore appreciated the over and asked how many advisors were in each group.
  + Dr. Bull replied that 11 adults and 12 youths contributed to the community advisory groups.
* Dr. Greg Kinney asked if the educational campaign incorporated the Frontier community well enough through the community advisory groups.
  + Dr. Bull said no, due to the timeline, we have not and have chosen to meet with more population regions, but representation from Pueblo and San Luis Valley/Alamosa was available. The hope is to have representation from all corners of the state of Colorado.
* Dr. Joseph Schacht asked if the goal of the educational campaigns focus was on the high-concentration cannabis use or just general cannabis use effects?
* Dr. Bull said that the charge is broad, and we are to build a campaign from the synthesis the cannabis team published for the general public. Without a clear high-concentration cannabis cut off definition, the advisory group would like additional clarity on how the campaign will approach “high concentration” products. They commented that the research team focused on greater than 10% while the marketplace has minimal supply of cannabis products containing anything less than 10%. This question pushes the group to focus on clear communication regarding either cannabis use and/or a specific amount delineating what is high-concentration cannabis use. It is also why the advisory groups suggested focusing on populations under the age of 21 among whom use is illegal. For those over 21 there may be more ambiguity about how to address concentration. No further questions or comments for Dr. Bull.
* Dr. Bull explained that we are presenting a mosaic of ideas that can be combined for greater reach, dissemination, efficacy and retainability to the desired communities of interest.
* Dr. Bull highlighted the limitations of the campaign and how the budget may not go as far as desired as the campaign’s dimensions take shape. Dr. Bull provided the example that a TV commercial could use the entire budget; however, this would not be an advised dissemination activity. Therefore, with the inclusion of diverse racial/ethnic groups and adults and youth mentors, we could develop toolkits, training activities, block parties, pop-up events, and use of influencers on social media to discuss the effects of high-concentration cannabis use.
* Dr. Bull expressed that the “Report on Activities Related to the High-Concentration Cannabis Educational Campaign” will be distributed to the SRC for their review. Dr. Bull provided examples listed within the report including block party/community events that bring people together, toolkits that have resources for front-line staff, train the trainer, pop-up events, and influencers & trusted messengers.

**Open Discussion with SRC**

* Chair Urbina asked the group for questions or comments. Chair Urbina applauded the presentation and commended the campaign team for their work. Chair Urbina expressed that his eyes were opened when joining these events, which helped him better understand the community needs.
* Dr. Samet reiterated that the Education Campaign team is still laying the infrastructure based on what we have learned from the reviews and the community responses. At this point, the team would like to be assured that they are on the right track regarding the education campaign. The SRC will need to provide their approval for the campaign at the end.
* Dr. Kinney asked if Dr. Bull has had any interaction with the Science Culture Foundation District (SCFD) regarding collaboration?
  + Dr. Bull thinks it is a great idea to collaborate with them and noted that they offer grant funding.
  + Dr. Kinney agreed that they have grants available with appropriate paperwork. But noted that they can help mechanically to assist with identifying pop-up locations.
* Dr. Wymore asked if there is an event or focus group for education towards maternal-child populations.
  + Dr. Bull referenced the report and the lack of evidence found in the published report outlining maternal health impacts. However, she states that lack of evidence does not mean there is not an issue, but to address this population, it would require additional guidance from the SRC.
  + Dr. Bero stated that safety cannot be assumed if a topic is not addressed in the scoping review. The campaign is not precluded from addressing pregnant women and infants. The way the review was conducted, and the gaps highlighted from the published literature do not provide definite evidence of harm. Dr. Samet believes this is an important group and although not well studied, an educational campaign can be developed for this group. Dr. Wymore’s expertise will be helpful. There are many populations for which a campaign may be needed but each will require specific tailoring to be effective. Dr. Samet asked Dr. Wymore if there should be one or more focus groups directed at this population or providers who care for this population?
    - Dr. Wymore responded that she works with other statewide groups that focus on maternal health and substance use and within her clinical and research work, the prevalence is increasing within this population. As a medical community, not having the robust literature as desired is problematic. If we do not come out with a message of caution, then the void may be filled by other voices that do now weigh against use. Dr. Wymore thinks we should take the opportunity to make a stance and provide some guidance in that regard.
    - Chair Urbina asked Dr. Bull, would it possible to develop that message further and target populations that have not been reached like reproductive aged women, rural populations, naïve users, and other populations that we have previously discussed. Don’t assume that high-concentration cannabis use is safe, there is no available research. In drafting this message, can we target these populations in one of the pilots?
      * Dr. Bull highlighted that the campaign requires the SRC’s approval. We are following the SRC’s guidance and would be willing to develop a campaign around this message if it is a preference and priority. We can leverage other partnerships and efforts by expanding it to other populations. We can continue researching strategies, so we do not have to reinvent the wheel for this project.
    - Chair Urbina advised a recommendation to the educational campaign that no evidence does not mean that usage is safe including for reproductive aged women.
    - The SRC members present (Drs. Hutchinson, Schacht, Kinney, Wymore, & Heard) endorsed this recommendation and collaboration for messaging.
    - Dr. Wymore mentioned that there are some collaborations statewide: Support Colorado, Colorado Department of Public Health and Environment (CDPHE) who focus on this area including lactation and cannabis use, and perinatal cannabis use. There are opportunities available for further collaboration regarding messaging to avoid siloing different groups all tasked with improving public awareness, education, and assisting clinicians caring for these populations.
    - Dr. Kinney encouraged reaching out to broader groups of middle schoolers and highschoolers and to make broader collaborations with those involved in the SCFD organization.
  + Chair Urbina asked the SRC if they are comfortable with the direction that the educational campaign is headed?
  + Dr. Schacht returned to the question regarding high-concentration products vs cannabis products more generally. Dr. Schacht tried to recall how the concentration cutoffs were defined and thought we defined the concentration amounts in the final report where some studies referenced THC in excess of 30% in products. Dr. Schacht would like to see some focus on those products, with consideration of the initial charge of HB 1317 and the current marketplace. Dr. Schacht thought there were some findings in the report specific to the high-concentration products.
    - Dr. Bero discussed that there were some studies addressing these products, but she would have to go back to the studies in the report to confirm which reported an association. The number of studies was limited based on what we found. The actual effect – either harmful or beneficial - that an individual experiences is related to the dose, of which concentration is only one determinant. Dr. Bero mentioned that one purpose of the review was to inform potential regulations on high-concentration products. The amount of THC in the product can be regulated. However, the effects on users have multiple determinants. For the campaign, there should not be a separation of products into bins by concentration. Dr. Bero is unsure if we should carve out a separate campaign for high-concentration products.
    - Dr. Bull emphasized the advisement from the SRC and team to provide a credible campaign that is carefully framed and that what can be said that is supported by the evidence.
    - Dr. Schacht recalls the disclaimer that was provided in the report of heavier use effects due to variable concentrations, frequency, and/or dose. Dr. Schacht asked if we include in the campaign that dose is something that should be considered when using cannabis and it is possible that negative outcomes are more likely with heavier use, for example.
    - Dr. Bull highlighted the discussion from her advisor groups. The product available now is stronger than it used to be. We should consider framing a conversation around this idea which can provide a harm-reduction perspective.
    - Chair Urbina mentioned the different types of users (naïve and chronic users) and the concern of the abuse potential. The advisory groups displayed concern and emphasized the need to express caution around use in the upcoming campaigns.
    - Dr. Kinney commented that industry advise “start slow and go slow” since 2016. Dr. Kinney asked if the statement “It’s not your Grandma’s Pot” is resonating in the youth advisory groups as it would in an older population?
      * Dr. Bull responded that an advisory group members provided this remark and wished his father would have provided context when he tried it the first time. For a toolkit, it would be useful for adults to describe their experience.
      * Dr. Kinney is worried we are not addressing the harms rather illustrating a user guide or how it was used in the past.
      * Dr. Bull emphasized the importance of this group to provide guidance when developing the toolkit as a point of conversation.
    - Chair Urbina thinks that using the harm-reduction focus will cover the concern of conversation between different age groups. Chair Urbina asked Dr. Kinney for his perspective.
      * Dr. Kinney replied that the fine line is still present, and he is unsure how to present the differentiation even with using harm-reduction statements.
      * Dr. Bull acknowledged the importance of this conversation and the campaign of “start slow and go slow”, but there may be a role for other industry related folks to display harm-reduction or at community centered events.
* Dr. Kent Hutchinson raised the concern of what is the scope of the campaign going to look like? Is it to focus on all forms of cannabis or just high-concentration cannabis?
  + Dr. Samet said the focus is higher concentration products. It will need to be our focus as covered by the bill.
* Dr. Schacht raised the idea of harm reduction in younger groups as a positive direction for the campaign. Dr. Schacht’s work mainly involves alcohol abuse, and he highlighted campaigns for minimizing teen drinking and high intensity drinking. The audience we target should focus on receptive years.
  + Dr. Bull said that the youth advisory groups mentioned that abstinence is not a message that will be received well from their age group. The message has to be more palatable.
* Dr. Wymore expressed the importance of our credibility. We need to be clear about what we present as the concentration cut off and that we need to focus on 3-5 bullets including the mandate of the bill and the fact that the definition of high-concentration cannabis is not clear in the literature. Dr. Wymore agrees that harm-reduction for these vulnerable populations is valuable and the organizations she is participating in is trying to engage parents/ new parents to help them from using substances for coping mechanisms and find ways to help them embark parenthood in the safest way.
* Chair Urbina thinks this is a great message to display. Chair Urbina acknowledged Dr. Bull and her teams work to reach out to a variety of groups and the focus is on youth and harm-reduction. Chair Urbina expressed that the group is moving in the right direction, but the SRC would like to see more of the specific principles, targeted populations, and what the pilot and toolkit may look like.
* Dr. Kinney mentioned the NIH funded two-day symposium regarding cannabis research about 3 days ago. One takeaway from NIH was that a healthy bud cannot go over 28% then the bud becomes unhealthy. NIH posts their recordings and although this may not help the campaign regarding products, the use of a cutoff may be a starting point.
  + Chair Urbina discussed the challenges of products being distilled down from various concentrations into one product.
  + Dr. Kinney returned to a prior comment by Dr. Hutchinson that if high-concentration means something other than bud, then anything higher than 28% THC might be something to think about as high-concentration as a talking point. Dr. Kinney will find the supporting link of the NIH recording to the group for review.
  + Chair Urbina asked if this is a reasonable direction for the educational campaign and if they had any additional comments.
    - There is unanimous agreement from the present SRC members (Dr. Hutchinson, Kinney, Wymore, Schacht, and Heard) regarding the direction the education campaign team is taking.
* Dr. Bull said that she will disseminate material to the SRC going forward beforehand, so the material presented is not as surprising.
  + Chair Urbina expressed the need for our meetings to be open to the public for comment. So, we may need to schedule another meeting for that is open to the public for comment.
  + Dr. Samet mentioned that we can work out a strategy to get the SRC’s feedback and expertise with the progression of the education campaign.
  + Chair Urbina asked if the education campaign welcomes public comment and how they can provide their input.
    - Dr. Samet highlighted the tab on the website for public comments and the comments submitted will be accumulated and will be made publicly available. If the SRC wants to provide comments, send them directly to Meghan Buran or Dr. Bull.
      * Meghan Buran highlighted the contact tab on the website where the public comment form is the same, but the submitted text will be added to the education campaign tab for public review.

No further questions or comments for Dr. Bull.

**Next Steps from the Cannabis Research and Policy Team:**

* Dr. Samet reiterated the publications and reviews in progress and the progress of the multiple educational campaigns. We anticipate another SRC meeting in about two months regarding the completion of tasks going forward.
* Chair Urbina thanked the Cannabis Research & Policy Team including the Educational Campaign Team.
* Chair Urbina and Dr. Samet commended the Cannabis Research and Policy Team for their work and the SRC for their input.

No further questions or comments for Chair Urbina and Dr. Samet.

**Next Meeting Timing and Closing Remarks:**

* No final questions or comments.
* Meeting Adjourned 2:40 pm (MT).