



# NCIPC Board of Scientific Counselors

**Summary Report  
Open Session  
July 15, 2015**

**National Center for Injury Prevention and Control  
Centers for Disease Control and Prevention  
Atlanta, Georgia**



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**DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)  
NATIONAL CENTER FOR INJURY PREVENTION AND CONTROL (NCIPC)**

**BOARD OF SCIENTIFIC COUNSELORS**

**Sixteenth Meeting: July 15, 2015**

**4770 Buford Highway  
Chamblee Campus, Building 107, Conference Room 1B 01206/1C 01210  
Atlanta, Georgia 30341**

**Summary Proceedings**

The sixteenth meeting of the National Center for Injury Prevention and Control (NCIPC) Board of Scientific Counselors (BSC) took place on Wednesday, July 15, and Thursday, July 16, 2015. The BSC met in open session on Wednesday, July 15, 2015. The BSC met in closed session for secondary review in accordance with the Privacy Act and the Federal Advisory Committee Act (FACA) on Thursday, July 16, 2015. Dr. Arlene Greenspan served as chair.

**Wednesday, July 15, 2015**

**Call to Order/ Welcome/ Roll Call/ Introductions/ Approval of Last Meeting Minutes/ Logistics**

**Arlene Greenspan, DrPH, MPH, PT  
Associate Director for Science  
National Center for Injury Prevention and Control  
Centers for Disease Control and Prevention**

**Dr. Arlene Greenspan** called the sixteenth meeting of the National Center for Injury Prevention and Control (NCIPC) Board of Scientific Counselors (BSC) to order. She observed that it was unusual for a Centers for Disease Control and Prevention (CDC) staff member to call the meeting to order, as a member of the BSC serves as the board's Chair. However, the current NCIPC BSC package is delayed at the US Department of Health and Human Services (HHS). The previous Chair, Dr. Carolyn Fowler, retired from the BSC and a replacement has not been named. Dr. Greenspan indicated that she would serve as chair of the meeting, and expressed her hope that a new chair would be approved soon. She thanked the BSC members for devoting their time, commitment, and energy to issues pertaining to injury and violence. She appreciated their busy schedules and the time that they have taken to participate in the meeting, particularly give the shortage of BSC members due to the delayed package. In response to feedback from the BSC, she explained that the meeting would focus on discussion rather than on report-outs, which were shared with the BSC members via email. The time spent with the BSC should be meaningful and yield good advice for NCIPC. She

then went over housekeeping issues; reviewed the agenda; and emphasized the importance of informal exchanges, feedback, and robust discussions.

**Dr. Gwendolyn Cattledge** and **Mrs. Tonia Lindley** conducted the official roll call of BSC members and liaison representatives present in person and via telephone, and confirmed a quorum of BSC members. The meeting attendance is appended to this document as Attachment A.

**Vote: December 2014 BSC Meeting Minutes**

**Dr. Angela Mickalide** moved to approve the minutes of the December 9, 2014 NCIPC BSC meeting. **Dr. Stephen Hargarten** seconded the motion. The motion carried unanimously.

**Director's Update**

**Debra Houry, MD, MPH, Director**  
**National Center for Injury Prevention and Control**  
**Centers for Disease Control and Prevention**

**Dr. Debra Houry** introduced herself and welcomed the BSC. She emphasized that the BSC is an important advisory group to NCIPC. The center staff members have been working to ensure more robust discussions during BSC meetings. This includes sharing products that have not been finalized in order to incorporate the input, thoughts, and expertise of the BSC. She shared some of NCIPC's major accomplishments in 2014, including the following:

- The Prescription Drug Overdose (PDO) Better Outcomes by Optimizing Safe Transitions (BOOST) for State Prevention (Prevention Boost) launched in 2014. It provides resources and direct support to Oklahoma, West Virginia, Tennessee, Utah, and Kentucky to advance the most promising PDO prevention strategies.
- The Motor Vehicle Prioritizing Interventions and Cost Calculator for States (MV PICCS), an interactive calculator, was released in October 2014. This tool can help state decision-makers prioritize and select motor vehicle injury prevention strategies from a suite of 12 interventions. It is designed to calculate the expected number of injuries prevented and lives saved at the state level, as well as the costs of implementation while taking into account the state's available resources. NCIPC hopes to model PICCS for other injury topics in the future.
- In 2014, the National Violent Death Reporting System (NVDRS) expanded from 18 to 32 states.

- ❑ The Violence Against Children Surveys (VACS) systematically measure physical, emotional and sexual violence against boys and girls; identify risk and protective factors and health; and measure utilization of services. VACS was implemented in 14 countries in 2014. NCIPC and CDC's Center for Global Health (CGH) developed the THRIVES technical package to guide country responses to VACS data. A technical package is a suite of effective, evidence-based interventions and policies that communities can utilize to address a problem. In June 2015, NCIPC and CGH released a *Morbidity and Mortality Weekly Report (MMWR)*, "Prevalence of Sexual Violence Against Children and Use of Social Services-Seven Countries, 2007-2013," using VACS data. The report found that lifetime prevalence of experiencing any form of sexual violence in childhood ranged from 4.4 among females in Cambodia to 37.6 among females in Swaziland. This report was the first *MMWR* using VACS data and incorporated data from seven countries.
- ❑ NCIPC has increased Congressional briefings significantly over the past two years. The center conducted over 60 meetings and briefings in 2014 and is on track to increase that number, having already conducted 20 briefings in 2015. NCIPC set a CDC record in March 2015, completing 16 meetings and two briefings in two days. These discussions with staffers and members of Congress are valuable to share NCIPC's work in PDO and in other areas.
- ❑ Institute of Medicine (IOM) reports have highlighted NCIPC's contributions to the field in both concussion and gun violence prevention.

NCIPC has been working with the White House and HHS on multiple topics, including the following:

- ❑ The White House Healthy Kids and Safe Sports Concussion Summit was held in May 2014.
- ❑ The White House Task Force to Protect Students from Sexual Assault was established in January 2014. On April 29, 2014, the Vice President released the Task Force's first report titled "Not Alone" on which CDC was a lead author. CDC hosted one key stakeholder meeting in spring 2015 and will host another in July 2015 to focus on action planning for the Task Force.
- ❑ The National Forum on Youth Violence Prevention launched in 2010 at the direction of President Barack Obama. CDC serves on the Forum Coordination Team and staff have been working to promote the public health approach to violence prevention and to emphasize the important role that the public health sector, especially the local health department, can play in the prevention of youth violence in each of the 15 funded cities.
- ❑ CDC participated in the White House Conference on Aging in April 2014. The 2015 conference incorporated NCIPC's work on falls through the Stopping Elderly Accidents, Deaths and Injuries (STEADI) initiative.
- ❑ A 50-State Prescription Drug Overdose meeting took place in 2014, and a new meeting has been announced for 2015 at the RX Summit.

More work is planned for 2015. Regarding PDO, NCIPC is developing guidelines for the prescribing of opioids for chronic non-cancer pain and will work with hospitals and electronic health records (EHRs) to implement them. There is a need for guidelines that are up-to-date, evidence-based, and free of conflict. NCIPC is leading this project and has started the process by establishing an expert workgroup that met for the first time in June 2015. The guidelines will be available for public comment via a Webinar in fall 2015. Dr. Frieden, CDC Director, has asked the center to shorten the timeline given the PDO epidemic in the country and the crisis situation in Indiana. The guidelines are slated for publication in early January 2016.

Building on the PDO Prevention BOOST program, CDC is launching the new PDO Prevention for States Program to fund up to 16 states for \$750,000 to \$1 million per year to implement a suite of PDO intervention activities. This new program gives states the built-in flexibility to respond to emerging crises and opportunities for prevention using Rapid Response Projects. As the grants are for four years, different issues emerge within communities, and this mechanism allows for response. The Funding Opportunity Announcement (FOA) was released in March 2015, and the awards will be announced in time for the 50 State meeting in September 2015.

A new "Cost of Injury" data analysis was completed and will be released in *MMWR* later in 2015.

The Fiscal Year (FY) 2015 appropriation for NCIPC in the President's Budget was the largest the center has ever received. The FY 2016 budget includes funding increases for the center's work in several areas, including:

- PDO for states
- Heroin-related overdose deaths
- The National Concussion Surveillance System
- Expansion of NVDRS nationally
- Research on gun violence prevention
- Sexual Violence Prevention/Rape Prevention and Education (RPE) Evaluation

The FY 2016 President's Budget does not match perfectly with the House and Senate markups, but the House and Senate budgets do include increases for NCIPC. The outcome of the budget will be decided in the fall of 2015, but the center is optimistic.

NCIPC's leadership team revisited and revised the center's focus areas in January 2015 to determine where they could have impact on timely issues in the next two to three years, given the availability of evidence-based programs, scalability, and partner support. The priority areas are Injury Center- and CDC-wide and include PDO and motor vehicle injuries.

The NCIPC leadership selected the following growth areas in the near-term, which inform the center's research priorities:

- Child abuse
- Sexual violence
- Older adult falls
- Youth sports concussions

When Dr. Houry joined NCIPC, she observed that the research agenda through 2018 included a few sentences on prescription drugs and a great deal of content related to trauma and acute care. The division that focused on trauma and acute care was restructured a few years ago, and the research agenda did not necessarily reflect the center's current activities or future directions. With the center's increased visibility with partners and Congressional outreach, it is important that the research agenda is up-to-date and timely. Given this goal, subject matter experts (SMEs) in each of the center's divisions were asked to develop intramural and extramural research questions for the next three to five years. The following guidelines informed the research question development:

- This is intended to be a CDC agenda, not one for the entire field.
- The agenda is intended to cover both intramural and extramural research.
- The intent is to focus on targeted areas to achieve impact.

NCIPC cannot "be everything to everyone," and it was important to make difficult decisions in focusing the agenda. At the same time, the agenda is meant to be optimistic and far-reaching as the center remains expansive and innovative. The agenda is intended to be a living document. It will not be revised on a daily, weekly, or monthly basis; however, emerging trends and different priorities will shape the agenda and it will be updated as needed.

Dr. Houry expressed appreciation for the time BSC members devoted to the review of the draft research agenda plan. The timeline for completing the agenda is aggressive, as the center hopes to have the agenda in place in Fall 2015 so that it is established in time for the release of the new FOAs.

Since 2005, NCIPC has completed 10 portfolio reviews on the center's scientific and non-scientific programs, ranging from a review of youth violence programs to Injury Control Research Centers (ICRCs) to health communications function. Later in the agenda, the BSC would discuss the recommendations made by the expert panel that conducted the Web-based Injury Statistics Query and Reporting System (WISQARS) Portfolio Review. With the incorporation of the BSC comments, 11 Portfolio Reviews will have been completed over a 10-year span. The reviews are intense and impressive; many of the recommendations change the center's portfolio, funding announcements, and structures.

### **Discussion:**

**Dr. Stephen Hargarten** asked whether the interactions between center staff and federal policymakers are communicated to the broader injury community. For instance, if NCIPC staff members are meeting with a delegation from a certain state, it would be helpful for the injury community in that state to know about the meeting and the contacts that were made.

**Dr. Houry** did not think that such communication had occurred to date, and she will follow up with the policy office to determine whether follow-up from partners would be possible. The idea makes sense.

**Dr. Sherry Hamby** said that Mark Biagioni provides a routine briefing to the Injury and Violence Prevention Network (IVPN), which consists of many stakeholders, including non-governmental organizations (NGOs), academic institutions, and other disciplines. The communication may not be as direct, but the information is shared.

**Dr. Angela Mickalide** asked about the extent to which the issue of the increase of heroin use is being considered within NCIPC's PDO work, and whether the center is taking steps to address the health threat associated with heroin.

**Dr. Grant Baldwin** said that a *Vital Signs* report focused on demographic trends of heroin use from 2010. Dr. Frieden and Dr. Houry requested a memo outlining CDC's footprint in heroin. The memo maps to the center's pillars in prescription drugs, including improving tracking trends, data quality, and trend analysis; bolstering state action; and evaluation activities. As with prescription drugs, more needs to be known about the cadre of people using heroin in order to build strong research questions. The memo outlines what CDC is doing in this area and where the agency wants to go. The President's Budget includes approximately \$5 million to increase NCIPC's work in heroin, and the Senate mark-up includes a notation requesting amplification of that work.

**Dr. Hargarten** noted that the injury problem of heroin has a law enforcement component. He asked about initiatives that bring the sectors of law enforcement and public health together with poison centers.

**Dr. Baldwin** responded that Dr. Frieden is energized regarding engaging law enforcement. He has reached out to the US Drug Enforcement Administration (DEA) administrator, and Dr. Baldwin and Dr. Houry have held a preliminary call with DEA representatives to discuss how their work might intersect. After the release of the *Vital Signs* on heroin, the poison control centers reached out to NCIPC to discuss how they can better work together. Representatives from the Division of Unintentional Injury Prevention (DUIP) sit on a government-wide Heroin Task Force convened by the US Attorney General that will create a series of action steps that the federal government can undertake to address the heroin problem. This work will be complete by the end of 2015, when the Task Force's recommendations can be shared.

**Dr. Houry** noted that NCIPC's goal is not to become "the heroin center." Their focus is on driving down heroin deaths and overdoses by focusing on safe prescribing. Their activities focus on the connection between heroin and prescription medications. There are differences between the two issues in the law enforcement arena, but NCIPC sees the work in conjunction.

**Dr. Baldwin** added that the profile of today's heroin users looks increasingly similar to the profile of a prescription drug abuser.

**Dr. Elizabeth Edgerton (HRSA)** noted that another sector involved in the heroin work is the pre-hospital setting. She asked about NCIPC's work in this area and said that the Health Resources and Services Administration (HRSA) is working with its Community Health Centers (CHCs) and primary care physicians.

**Dr. Baldwin** replied that NCIPC co-sponsored the US Food and Drug Administration (FDA) Naloxone Uptake and Use Meeting in July 2015. Some of their research considers gaps in Emergency Medical Services (EMS) providers' certification and ability to administer Naloxone. NCIPC is interested in increasing Naloxone uptake and use in the pre-hospital setting while keeping the interests of FDA and the US Substance Abuse and Mental Health Services Administration (SAMHSA) in mind. NCIPC is also interested in developing a surveillance toolkit and other syndromic metrics for communities to use to understand "hot spots" and where their challenges lie. There has been strong Congressional interest in the Rapid Response projects and ensuring that the PDO work is within communities. There are natural connections between community work and pre-hospital work.

**Dr. Edgerton (HRSA)** said that conversations among the different sectors are useful, especially given the different cultures among the sectors. The sectors lie along a continuum.

**Dr. Baldwin** indicated that NCIPC is also discussing opportunities for collaborations regarding PDO with HRSA.

**Dr. Mickalide** asked about the differentiation in the research agenda and programmatic work with other unintentional injury risk factors, such as drowning, fire, pedestrian safety, and poisoning prevention. She wondered whether the center is still engaged in these areas.

**Dr. Houry** said that NCIPC is still engaged in home safety areas, but with limited resources, the research agenda reflects the majority of the center's efforts. The center does not have capacity or in-house SMEs in some home safety areas, such as dog bites or fires. The center still has capacity in some areas, such as drowning, but most of their work in unintentional injury focuses on motor vehicles, falls, traumatic brain injury (TBI), and PDO.

**Dr. Hargarten** said that with the Affordable Care Act (ACA) still under review but making progress, he has been impressed with how healthcare systems are interested in population health. In their partnerships with communities in conducting community assessments to identify their priorities, injury and violence are commonly identified. He asked about ways in which NCIPC is engaged in bringing those partners together in a manner that strengthens injury prevention efforts in the healthcare systems sector and complements public health departments and advances injury prevention.

**Dr. Houry** indicated that a briefing was held in June 2015 on this topic. She has experience with community needs assessment from the hospital perspective. Another briefing will be held with the NCIPC leadership team regarding how to capitalize on the Community Health Needs Assessments (CHNAs), particularly in violence and falls. Divisions within NCIPC are considering how to implement their work in healthcare systems. For instance, PDO efforts can be incorporated into EHRs. A paper to be released in the *Journal of the American Medical Association* (JAMA) examines roles for healthcare providers regarding violence. As the ACA continues to roll out, NCIPC's Office of Policy and Partnerships is considering these issues. They are creating a White Paper on injury and violence prevention opportunities in the ACA.

**Dr. Hamby** asked for additional detail regarding the toolkit. She has heard feedback from front-line community providers in different roles that toolkits may need to offer a smaller menu of choices, as many programs do not have sufficient resources to review the 30 choices in a toolkit to determine which is most suited to them.

**Dr. Houry** said that it is important for materials that are shared with state health departments and communities to be actionable and helpful. They have been working to provide information so that front-line organizations can be as rigorous as they can be; at the same time, shorter guidance documents can be very helpful. The new STEADI toolkit has three questions to ask and a flowchart so that the toolkit can be implemented. Engaging partners earlier in the process helps ensure that NCIPC's tools can be incorporated into different settings and utilized by different groups.

### **NCIPC Research Agenda**

**Arlene Greenspan, DrPH, MPH, PT**  
**Associate Director for Science**  
**National Center for Injury Prevention and Control**  
**Centers for Disease Control and Prevention**

**Dr. Greenspan** acknowledged the many people who have worked on the research agenda to bring it to this point. Not only did NCIPC staff participate on the workgroups with BSC members, but other SMEs and consultants participated as well. The following workgroups were convened:

- PDO Workgroup
- Motor Vehicle Injury Workgroup
- Older Adult Falls Workgroup
- TBI Workgroup
- Violence Prevention Workgroup
- Steering Workgroup

Four separate workgroups focused on unintentional topic areas. A large workgroup considered the cross-cutting nature of violence risk and protective factors and considered individual violence issues. The Steering Workgroup included SMEs from each of the topic areas and a division Associate Director for Science (ADS) or deputy ADS. Each workgroup included a representative from the Division of Analysis, Research, and Practice Integration (DARPI), the center's cross-cutting division, with a focus in statistics, economics, or translation, as well as representation from the Extramural Research and Programs Office (ERPO). Finally a BSC member with topical expertise was also included in each of the workgroups.

When the workgroups were assembled, the process of creating the research agenda did not begin from "ground zero." Many materials were available to start the work. The different areas had strategic plans, and previous portfolio reviews were important resources. The workgroups also consulted previous research agendas, team strategic plans, and relied on ongoing intramural and extramural work. The workgroups generated initial drafts, guided by templates to provide consistency and a clear "ask."

The workgroups considered the gamut of research, including etiologic, intervention and translational research. CDC has a “sweet spot” in the applied research area, moving research to programs and feeding information from programs back to research. The NCIPC research agenda incorporates this idea.

The timeline for creating the agenda was aggressive. The drafts from the workgroups were shared with Division leadership and the Steering Workgroup, which looked across the drafts for consistency, detail, and gaps. The workgroups revised the drafts, which were then presented to NCIPC senior staff. The drafts were again revised and were ready for BSC’s discussion and comments during this BSC meeting. There will be more revisions if necessary.

Dr. Greenspan presented questions for guiding discussion on the Research Agenda and opened the floor for the BSC’s feedback. The discussion following each question is presented in verbatim format in order to ensure that all details are presented.

***Question 1: Did we capture the right level of detail? For example does the research agenda have sufficient clarity and detail so that extramural researchers can anticipate the Injury Center’s research directions?***

- Are some questions too narrow and others too broad to generate research proposals and yield intramural research in the priority areas?***
- Are there too many or too few research questions to cover a 3-5 year time frame (it is not expected that all will be completed in this time frame)?***

### **Discussion**

**Dr. John Allegranter:** First, I do want to congratulate and commend the working group and the leadership in moving the agenda to this point forward, and you did it on a really tight timeline. So, I appreciate that. I have sort of an overarching kind of question that I think relates to the entire document and the entire enterprise of trying to set a research agenda, having had some experience in the past with research agendas for other organizations. That has to do more with the outcomes, if you will. You know, I think what I like about the way this has been framed is that it's aspirational in nature. It's got a reasonable timeline, and it provides for a lot of flexibility. I think you mentioned those things at the outset in your report. So, I really endorse that and I like the general frame of this. The larger question is whether there are metrics for both process going forward. To what extent are we achieving what it is that we are hoping to accomplish with the research agenda? You know, I don't see goals and objectives that are measurable at this point, and I wondered whether at some point you would want to develop that. So, it's a broader question. You know, I'm using this question as the context for that, but I think it relates to the entire document.

**Dr. Greenspan:** I'm glad you asked the question. We have been wrestling with this and thinking about this. We will be actually hiring an evaluation scientist. One of the main functions of that person will be to help us come up with metrics, track and see what our outcomes are. My question back to the group is whether the questions, as they are currently written, have sufficient detail to enable us to write metrics. However, that is our intent. The intent is to track our progress. The other big question that we're wrestling with is: Given three to five years from now, what will success look like? So, those to me

are still questions that have not been fully answered, but they're really top on my mind as to how we proceed with those.

**Ms. Dawn Castillo:** I also applaud you for the work on the agenda. It's really remarkable. I've also been involved in agenda-setting. In terms of the amount of detail, and so you've noted that there's limited resources, so I think it's recognized that at the end of the day what you're going to achieve is not going to be an answer to every single one of these questions. I do like the large number of questions though, because I think that plays to the extramural community. So, you know, one of the values of extramural research is that it's investigator-initiated. So, you want to provide a broader scope for them to be able to hit the target. So, I think it works that way. I think it will be a challenge when it comes to the issue of developing the metrics. We've also struggled with that a little bit. We have a research agenda for traumatic injury and the National Institute for Occupational Safety and Health (NIOSH), and what we ended up doing was developing performance measures, and they took different fronts. For example, sometimes they would say that a certain number—X number of research projects would be conducted by this period that address this question, that the findings would be published with at least three citations of different types of intervention evaluation research. So, I throw that out in the event that that might be useful to you as you work through this.

**Dr. Greenspan:** Just in response to that, we purposely kept it a little bit broader to allow for, extramural influence. One of the things we wanted to guard against though is a research agenda that is so broad, as the current research agenda for the field, that people can answer things on so many fronts, and you with a splattering of research here and there and you never end up with enough of a body of work to move any one area forward. The question we want answered is whether the agenda is broad enough for an extramural audience, but still narrow enough for us to be able to move the field forward?

**Dr. Houry:** I would echo what Arlene said, too, particularly for our federal partners that are here in person or on the call, is I think it's important for us to ask: What is CDC's stake in the ground in these different topics? Because, you know, we work collaboratively with a lot of different agencies, but we want to ask, you know: What is CDC's focus on prevention, or on prescription drugs, violence? You know, what is our unique contribution and what do we view in the intramural/extramural portfolio that will drive our work?

**Ms. Castillo:** So, another thing I think is worth considering, so at least within my organization, and we have a research agenda, we have some things that our intramural staff are absolutely set up for. Then we have gaps in expertise and innovation, and so we've struggled through this process of trying to delineate those things that we're most interested in the extramural community addressing because we don't have that expertise. So, that might be something to think about. I'm assuming that you're in a similar boat. I'm also assuming that while you want to have a broad enough landscape for the extramural community to respond to meet your needs, you might want to have a more refined focus for your intramural staff.

**Dr. Greenspan:** Any questions, comments, discussion from anybody on the phone?

**Dr. Maria Testa:** I reviewed the violence part particularly carefully, because that's what I do. I thought it was generally really well-written and I tried to think: Well, is there anything I might think to do that wouldn't be covered by this? The one thing was there

wasn't much on individual factors. I'm a psychologist. Is that by design? Would that be excluded in favor of community-type factors?

**Dr. Tom Simon:** That is by design. It's something that we've been reflecting on in terms of where the critical gaps are. We're really trying to intentionally project to the field our interest in moving beyond individual level and relationship level factors to look more broadly at community, neighborhood, and school level factors that can have a broad impact, particularly on multiple forms of violence. So, it was by design. Now that said, if you want to email us with a particular type of gap at the individual level that the group should consider, we would welcome that input.

**Dr. Testa:** Okay. Thank you.

**Dr. Thomas Feucht:** I wanted to respond to your comment about breadth, and critical mass, and specific areas, and just encourage you—I think we all struggle with this balance—and just encourage you in a three to five year agenda to, by the midway point, you know, plan to take stock of where a body of research is starting to grow and whether you want to make some strategic adjustments to capitalize on that to begin to shift. Or, where there are gaps that still remain largely unmoved, how you want to respond to those gaps. This is just a tricky business of trying to get both breadth that, you know, enough breadth so you can respond to a wide variety of interests on a wide variety of issues as they arise, and yet be able to build some momentum and critical mass when those opportunities arise.

**Dr. Houry:** Thank you for that input. That's pretty much exactly what we're hoping to do and why we see this as more of a living document, particularly because we know if we're issuing a grant that we won't have results from for three to five years, a lot of these questions won't be answered for, you know, four to six to seven years. So, we assume we'll see progress through progress reports, through shorter contracts, things like that. So, we do plan to use interim findings to help guide whether we're on track, if there's, you know, emerging issues to really fine tune it. We really—at least my hope is that this is really kind of an iterative process that we don't really have to recreate this every few years, that this is something we can build off of, change, and adapt.

**Dr. Hamby:** I would suggest a couple of things. One, I would suggest that you give some consideration—you talked about shifting from the 10-year plan to something that's shorter, and when you think about evaluating it, like what are you hoping to change there and what are you hoping to accomplish? As somebody who is probably more in touch with the extramural perspective, I think it is important to try to strike that balance and not be too directive or too centralized. It is true—the problem that you mentioned, Arlene, is a very real problem that I also, and all of us, see all the time, is that it can seem sort of diffuse and that it's not very directional sometimes. But, at the same time, I think there is better evidence that an overly-centralized and top-down approach stymies innovation and, in fact, you know, if anything, I think there's some emerging data for more economic analyses that if anything, the federal funding agencies are too conservative in that regard. So, I wouldn't want to push you in to that direction even more so. And then the other point I want to mention, if you're thinking about ways to evaluate it, I would definitely agree with Dawn that some performance metrics are a good idea. In the foundation realm, they have a system that you don't see at the federal agencies very much, because most of the—at least on the extramural side, you know, most of the federal grants just have sort of deliverables. There are, you know, three journal articles,

and your report, and bla, bla, bla. But, they usually have a framework about outputs and outcomes, which I think are kind of unfortunately similarly named. I have to always think of which one is which. But, outputs are really deliverables in the sort of traditional sense. And then they really almost always ask researchers to craft some short- and long-term indicators. You're not probably going to eliminate PDO in the next three to five years even though that would be lovely, but you could certainly, I mean, you do so much of this already, you know, in terms of having markers of—you do a very good job compared to most players in the field, I think, of marking traffic on your social media sites and things like that. So, that would be a way of kind of tracking early on like what sort of hitting, what my need an extra boost if you feel really committed to it but nobody's really clicking on it or whatever the case may be, and to think in that output/outcome way, I think, has been really—the more foundation work I've done, the more I found it helpful in terms of thinking about that. And then I also just wanted to end by just saying, especially you know having done part of the process on the violence end, that I was really impressed with all of this work and I think it's fantastic that you're going to something that's a little bit leaner, and more flexible, and more timely. I also heard tell that you did it in this very short time period, so I'm particularly impressed. Let's beat on Deb day.

**Dr. Greenspan:** This was a long timeframe for Deb actually.

**Dr. Houry:** I'm an emergency room (ER) doc. You know, 20 minutes is a long time.

**Dr. Greenspan:** Thank you. Those are good comments, and we may come back to you as we flesh out some of these because we do want to create indicators and measures. In fact, I'm sure we will come back to you. Because of the aggressive timeline, we're at the point that we want to make sure that this is where we wanted to be before we start creating the next step, which we'll probably do in a day. Anything else? Any further discussion? Any other questions? Any other comments about the detail of the agenda currently? Number of topics? Number of questions per topic area? Okay, we'll go on to the next question.

**Question #2: Are there any major gaps, consistent with CDC's mission and niche, which we are not addressing?**

- Is there sufficient coverage in the agenda to cover the new priorities set by NCIPC?***

**Discussion**

**Dr. Greenspan:** You did mention individual level gaps.

**Dr. Mickalide:** I'm looking on Page 13 where you're focused on motor vehicle injury prevention and you're assessing the effectiveness of innovative policies and program strategies to prevent or reduce alcohol-impaired driving. I'm wondering if that could be broadened to be impaired driving overall, given the increase in medical marijuana use in our country.

**Dr. Houry:** That's a great point, Angela. David, I did not pay her to say that. I may have put that comment and it may have been taken back out by David.

**Dr. David Sleet:** Thanks Angela for that question. Actually, it is a question that we wrestled with. In the first several iterations, we did have impaired driving, which would cover distracted driving as well as alcohol and drugs. Then we got down to a smaller level, a narrower level, in which we started thinking about drugs and driving. We did our homework with the National Highway Traffic Safety Administration (NHTSA), who we have a great relationship with quite often, asking them about the kinds of research they're doing, the kinds of gaps in their research that we might fill, and learned that in particular with regard to marijuana, they're doing a lot of work and have done so up to now. We couldn't find a specific role for ourselves in that that wouldn't duplicate what they're currently doing. So, we deferred the marijuana work, at the moment, to NHTSA. I think as we learn more about the problem, this is an agenda that can be revised and updated. We would add those questions where we feel we have a unique role. But, I still think your question is a good one about broadening it to impaired driving. However, our focus currently is primarily on alcohol. Grant, did you want to add anything to that?

**Dr. Baldwin:** No. I would say, though, I think we struggled a lot, and it's a very good question, Angela, around where our interests are and the gaps that we identified from the Injury Center perspective, or in our case the DUIP's perspective, with intersecting those with the broader field's needs and the broader potential partnership needs. Part of sort of the subtext of some of these questions is, as you reflect on the—and this is just a question for you, Angela, and for the rest of the board, as you reflect on the priorities, how well do you see partners getting behind this and understanding the focus that this is intended to have? Because I think that the worry we have, and I think as we wrestled with the last research agenda that was so voluminous that you could really do almost anything and it would fit under the agenda, this is more tightly bound, and deliberately more tightly bound. But, a worry that we have, and I think others have in the room, is that by doing that, we don't want to be closing doors or being off-putting to some of our key constituent partners, because we're not intentionally trying to say those other topics aren't of interest to us, but rather these are the central things, given our resource base to a certain degree. Does that make sense?

**Dr. Mickalide:** It does, and I'm heartened to hear that NHTSA is focusing on this very timely issue, and that you'll be collaborating with NHTSA where possible.

**Dr. Houry:** I guess the question I might add to that is, you know, I don't think most people that smoke marijuana don't do other things, and so is there, you know, could you look at the overlaps of those who are drinking with marijuana as an additive effect. As we've talked about, you know, some of our core states right now do have legalized marijuana, so that could be a role for CDC in this, to broaden to have one or two specific questions tied to marijuana. I think my bias and perspective on this is, at many of the partner meetings we've had, we're hearing a lot about the issues of legalized marijuana. To be frank, we don't know what the studies are going to show. I mean, it's been very contradictory. Some show that it might cause harm, and others show that it may not cause harm. It's not a simple thing like a blood alcohol concentration (BAC) level. But, just because it's not nice and neat, I don't think we cannot do anything on it, particularly when we have a marijuana workgroup now at the agency that's starting to work on some of these things. Motor vehicles is one of the things they've identified. So, I always believe in developing our own fate versus having it handed to us, and so I think anything we can do that's additive to the alcohol or just something to add a teeny bit to marijuana, but not to make a huge focus on marijuana because, again, we don't know where it's going to go and it may not go anywhere that we want to go with it.

**Dr. Sleet:** There may be a role for our CDC laboratories looking at some of the toxicology and interaction with alcohol and marijuana. So, I think we have an open mind about that, Angela, and we'll continue to look at opportunities.

**Dr. Houry:** Great question, Angela.

**Dr. Christina Porucznik:** This discussion relates to one of the comments that I had submitted beforehand that I worried a little bit about people seeing the list of priorities as exhaustive and not seeing room for innovative ideas. The idea that if people didn't see themselves listed in the research priorities, they may just figure, "Oh, CDC is not interested." So, for researchers in the field, we might not have thought of NHTSA, for example. Perhaps there could be something where, if an investigator contacts CDC and says, you know, for example, "I'm interested in something that I think is an injury topic" and it's not so much in CDC's portfolio, it would be really helpful if there's information back to say, "Well, it's not in the profile because it's in this agency, and this might be a person that you could contact there" to help share that federal knowledge that those of us in states and academia wouldn't have. The related comment is maybe along with state reportable diseases where we have a list of disease outbreaks that are reportable, but there's also at the bottom "or any other unusual occurrence," maybe a statement that welcomes an innovative solicitation, you know, with the idea of "Just because you don't see yourself here doesn't mean we're not interested in your project. Call us and we'll help you figure out if your project is a fit." That's all.

**Dr. Houry:** I think that's a great point. I think part of that will be addressed too when we develop really the overarching statement. What you're seeing in this research agenda is really the nuts and bolts part of it. Particularly with the short timeline and because we didn't know what this agenda was going to take shape with, we wanted to hold that until we had the BSC meeting and time to go through our senior leadership team for revision. We hope to have really like a two to three page front to this that helps put a lot of that in perspective.

**Dr. Greenspan:** Hopefully, the next time you see this it will have that in there. These are good suggestions that I'm taking down to add to an executive summary that will go with the agenda.

**Dr. Hamby:** I was going to make basically a similar suggestion to Christi's about providing some sort of guidance and insight about why you have chosen the areas you've chosen and why some things are not in there, because I think a lot of people will wonder about that. That is a great question, Angela. But, you know, I guess I would also, maybe on this one just maybe nudge you a little bit to not necessarily capitulate to NHTSA in terms of an area, and I'm not really sure that this—I admit that I hadn't been thinking about marijuana when I was reading this, but now that it's brought up, from a public health point of view and the priority you mentioned earlier about carving out what the unique CDC role is, that that makes a very clear and obvious place to draw a line. So, I think a lot of the lines that you do draw make a lot of sense to me in that way. I would say, too, that is something that's getting—marijuana-impaired driving is something that people are buzzing about. It just seems like every couple of months, you know, the laws are changing in more places, you know, and when I—especially out in the states, recently that have recently legalized it, and that's all that people are talking about. So, I don't know if you necessarily want to step back from something that I think is becoming

an increasingly important public health problem. I also think, too, thought that part of the reason of going to this shorter term research agenda, which I think is a fantastic idea, is to stay more cutting edge and up-to-date. I think that your typical person, who is never going to understand this whole history of all these conversations and things like that, is going to look at this and go, you know, "CDC is still focusing on alcohol, but everybody else is talking about texting and marijuana" and do you really want to leave yourself in that position?

**Dr. Sleet:** These are good discussions for us to consider, because I think there are valid points to all of this. We've done our sort of due diligence within the center at the various leadership levels, so we're anxious to hear what you have to say, and I think these are legitimate questions to consider.

**Dr. Erin Sauber-Schatz:** I'm the Transportation Safety Team Lead. I think just some of the thinking behind some of these research priorities that we set up as well, so we always try to focus CDC on places where we have evidence-based interventions. So, that's one of the main reasons we don't do work in distracted driving. So, states have distracted driving laws, but they haven't been shown to be effective, and so that's one of the reasons we stay out of distracted driving. Another thing is burden. So, it's a fairly small number of actual crashes that have been shown to be having distraction as a piece of the crash. Then specifically for marijuana-impaired driving, we know that of all of the fatalities, a third of them are still alcohol. And so the concern in the field is that people will go after drugged driving as kind of the shining new object, and that alcohol might get left behind a little bit, when we know that it still has such a huge burden. And so we're purposely keeping a focus on alcohol, but then with our work with NHTSA and other agencies, knowing what we're all working on, and then what CDC's role could be. So, through the marijuana workgroup that we have here at CDC, we are talking through questions that we can include on things such as HealthStyles to try to get at self-reported marijuana and driving use. So, we don't even know the prevalence of marijuana-impaired driving at this point. So, we're working together to take little steps without leaving behind the priorities that make the most sense for us, and that we have evidence-based intervention at this point.

**Dr. Hamby:** I think those are excellent arguments, and even just a few lines in this document that you feel like it's at a level of surveillance and that there aren't good interventions, and so this is a priority. I know when we were working on the violence one that we decided not to get too precise on the numbers, because those always change a little bit every year. And so, I understand you might be a little bit reluctant to compare, in too much precision, alcohol-related deaths to deaths due to distracted driving, or marijuana-impaired driving, or whatever other variations there are out there. But, at least some sort of statement, a more comparative statement like that, would help people understand like why you were focused on this as the priority and protect yourself from those kinds of questions that other people are probably going to have as well.

**Dr. Sauber-Schatz:** I think the only other two comments I would make, just for knowledge for the group is we have—both Colorado and Washington are core violence and injury prevention program states, so with DARPI in conjunction with our division, we are working directly with them for motor vehicle injury prevention. So, we're aware of what's going on in their states and trying to think through potential points of collaboration with them. And then, you know, the other point that is something that we're keeping in mind is what Tamara said and Deb said about the fact that we really can't measure marijuana-impaired driving. There's no blood alcohol concentration test. There's no breathalyzer essentially for marijuana-impaired driving. And anecdotally from the field, we know that law enforcement that pulls somebody over, if they find alcohol, that's where they stop. So, even if someone is using alcohol and marijuana, we don't get to that second point. So, there's lots of complexities within the data and places that we think we can go, or other agencies can go, so we're involved up to a point.

**Dr. Baldwin:** I think those are very good points. Let me just add to that and I was going to, you know, echo what was said about the countermeasures problem with drug-impaired driving, but I think the framing that you raised, Sherry, is a great point. I would also say that even in alcohol, we are focused on present-day countermeasures or horizon countermeasures, so you don't see us making heavy investments in, you know, alcohol detection in vehicles. You know, that's the technology that once we're all retired, hopefully on a beach sipping a margarita, will be the alcohol-impaired driving intervention tour. But, we're focused on interlocks and sobriety checkpoints, which we do know they work, and they work right now, so that's why we're focused sort of on countermeasures.

**Dr. Hamby:** Well that framework I mentioned earlier about splitting things up into like outputs and short- and long-term outcomes would help put a context and framework around what you just said, too, Grant.

**Dr. Mickalide:** I wanted to move on to another topic if we're finished with the marijuana issue, which is, as I read through the traumatic brain injury research priorities, there is an articulation in here that motor vehicle crashes, particularly when people are unrestrained, as well as falls, are leading causes of TBI. Then as I read each of the subsections, the focus is really on sport-related traumatic brain injury. Is that correct? Are we only interested in sports-related TBI within the CDC system? Is that what you want to focus on? And if so, that header should be more specific.

**Dr. Houry:** I can start with that and then we can see if anybody else wants to answer. What I would say is within TBI, our growth area is sports concussion, but we do recognize the contribution of mechanisms like older adult falls and motor vehicle crashes. So, our hope is by, you know, focusing on motor vehicle crashes and older adult falls, that other growth and agency priority areas that we're decreasing TBI for those areas. So, a lot of our portfolio now, focuses on the Heads Up campaign and things like that, we hope to build on that successful program, that has for example online training of coaches, and we're seeing this as one of the niche areas that CDC can really move forward in. I think we want to look at the work that National Institute of Neurological Disorders and Stroke (NINDS) and other agencies are doing around traumatic brain injury, and I came from Emory where we had the PROTECT III trial, you know, looking at progesterone and acute TBI, we're trying to really carve out what is it that CDC does from a prevention standpoint. So again, our work in motor vehicles and really older adult falls, when you look at the consequences and how that results in TBI,

we hope that that will reduce it there. But, then we're looking at more prevention interventions, we've added really a focus on sports concussion.

**Dr. Baldwin:** I would just add, Angela, you know, that was deliberate to the extent that we're trying to be opportunistic. So, with the IOM report that came out, you know, calling for CDC to do more work in sports and rec-related surveillance and amplify changing the culture around youth sports, there are a ton of unanswered questions that you see in the agenda as it stands now in that whole area in and of itself. We have received already some criticism when we announced the focal areas to some of our traditional TBI partners around what they perceive as a too narrow focus. So, as Deb and Arlene have indicated, this is not at the exclusion of other areas, but rather, you know, on a stage, we are putting a spotlight on this issue while there are all these other actors on the stage at the same time.

**Dr. Greenspan:** Let me just add that I think, as Deb had said, some of the other major causes of TBI, such as motor vehicles and falls, are really dealt with in some of our other teams and some of our other focus areas. So, perhaps we can do something, whether it's in the executive summary or in the introductory statement, that acknowledges that this for us is, in many ways, a crosscutting topic and that the TBI-specific area kind of focuses on things that other areas within our center are not focusing on.

**Dr. Mickalide:** Right, so I guess, thank you for the clarification, I'm just suggesting on Page 16 that the heading is "Sports-Related TBI" so that the reader better understands what the focus is. I concur that this is an enormously important area, under-researched area, and with Comstock's publications in *JAMA Pediatrics* earlier this week on the use of protective devices and the role of—it's just that it speaks to how our knowledge gaps are so profound in an area where we want to be encouraging children and young adults and all of us to be more physically active, and how do we balance, you know, the risks with the benefits?

**Dr. Houry:** I tweeted about it. Thank you for that, and I agree. We can really, I think, frame that. When I look at extremity fractures, I can say that motor vehicle collisions and, you know, falls, have got a huge risk for femur fractures and hip fractures, but we don't have, you know, a femur fracture or hip fracture team. Traumatic brain injury—has much more severe consequences obviously with long-term sequelae versus putting somebody in a traction splint and then, you know, hoping they heal. So, that's why I think we've always maintained TBI as really a separate entity, because there's the rehabilitation and everything else that goes along with it. But, to your point, and to Grant's point, too, we're looking at opportunities—and that was one of the ways we chose growth areas. When you look at the President's budget calling out, you know, money for a concussion surveillance system, we want to make sure that we are primed and ready to say what it is that we need in those areas.

**Dr. Sleet:** I can just add that in that surveillance system development that we're working on, we're not going to be only collecting concussion-related surveillance information. We'll be collecting information on mild TBI resulting from all causes: motor vehicle, falls, and others. The last section of this section is on delivery models for care, and that piece of the agenda will also include best models for TBI regardless of its cause.

**Dr. Greenspan:** So perhaps some kind of framing about the prevention aspect would be indicated to kind of enhance the understanding that we are concerned about all causes of TBI, and some of them are being dealt with in other parts of our agenda.

**Dr. Houry:** Violence, you know, when you look at child maltreatment and intimate partner violence (IPV), and a lot of the National Football League (NFL) stuff that we're seeing, is concerned about TBI related to violence as well.

**Dr. Sleet:** Let me just ask a question of the BSC on that score. On Page 16, the title is "Traumatic Brain Injury." In reviewing this within the center, Jim Mercy in the Division of Violence Prevention (DVP) suggested that that might be retitled "Unintentional Traumatic Brain Injury" because the violence-related traumatic brain injury material is covered in their section in DVP under "Child Maltreatment." So, I wonder if we could get some information about how you would prefer that to read, because traumatic brain injury, maybe we could cover that in the introduction and talk about not only unintentional injury at that point, but violence-related traumatic brain injury would be covered in the DVP section. What's your preference?

**Dr. Mickalide:** My suggestion was that that be retitled to "Sports and Recreation Related Traumatic Brain Injury" rather than "Unintentional" because as I read through each of the four sections, three out of the four is really talking about, you know, sports-related concussions. And so I think that's why I'm raising this issue about falls and motor vehicle crashes, all of which are unintentional. That would be my recommendations.

**Dr. Houry:** What would you do about the fourth part then? Because I think we wanted to really focus the majority on sports concussion, but then really do services like the health service delivery model, which is greater than just sports concussions. That's a question. I don't have an answer.

**Dr. Hamby:** I would have a different suggestion, so which, you know, so you'll have a smorgasbord to choose from. So, I liked the idea of framing the traumatic brain injury and saying some of what you and David were just saying, Deb, that this is obviously a crosscutting issue that comes up in a number of these other areas and that for this priority area, we are going to focus on, you know, the most common forms that are not already captured by your focus on motor vehicles, violence. In that regard, I mean, I can make the argument both ways with the suggestion about calling it "unintentional." Because I'm a violence person, it kind of makes sense to me, because I kind of think about what you guys do with either like "intentional" or "unintentional," and then it would sort of—this is in your unintentional sort of side of business, and maybe that would make it clearer. Then on the other hand, and I'm going to put two different things on the smorgasbord myself, on the other hand, maybe the argument against that it is crosscutting across intentional and unintentional, and so if you just called it "unintentional" you would lose that acknowledgement that that's an issue in violence, too. So, I would probably really not necessarily rename it, but just focus more on framing it in the opening.

**Dr. Hargarten:** I would really strongly encourage that as well. I think that framing it is important—getting researchers to understand what this research agenda is about and what it's not about. I would like the idea of the last piece of that to be crosscutting in terms of care. No matter what cause of traumatic brain injury from kinetic injury, the same issues start to trickle down to maybe some specific issues that are addressed because of the circumstances. But, I think this gives the researchers some idea of what this is about and what it's not about, and gives some latitude. So, I think you have some challenges about writing this interesting discussion about what this research agenda is about and what it's not about is helpful for our group of researchers to understand this is what the CDC is focusing on. Great. Then I know that, and then I know where there may be other places where I can also go for filling that gap.

**Dr. Greenspan:** Any other comments on TBI or any other gaps folks want to talk about? Great suggestions.

**Dr. Hargarten:** I did want to make a comment, again, in a general way about gaps. Where is it going to be discussed—and maybe this is not necessarily specific to the research agenda, about training future science leaders in this field? Given that it's a three- to four-year focus, which has its strengths and perhaps limits, where do young researchers see, "Boy, I really want to get involved in this field, but I only see three years from CDC. I see longer opportunities in other agencies." Where are you landing with this as part of stimulating participation in this research agenda for future researchers who say, "I really want to get involved in this in a real way. I see the research agenda. How do I get more active?" How does the CDC see playing that role?

**Dr. Houry:** I think part of it, and maybe this is a discussion we can either have now or put in the parking lot, is what we're going to call this. Because to be frank, we've talked about whether or not "Research Agenda" is the appropriate word for it, because then that means that it's kind of like the book that we have versus like, you know, research priorities or something like that, because, again, this is not for the entire field. This is just kind of our short-term direction. When you look at what the National Institutes of Health (NIH) puts on their website, they'll just list some priorities and might not get a lot of participation from the field on what it is. Our hope is that, again, this is not changing every year, every three years, that we're able to keep adapting it. So, that might be something that's just how when we're framing it that we do that. Separate from that is the mechanisms, and that's something that Arlene and I have talked about too is: Do we have the right mechanisms for awards to allow junior scientists to emerge? We don't have the K grants, you know, that NIH has. We also don't have the funding that NIH has, or the \$2 billion increase proposed to them by the House and Senate. But, we want to make sure that there are ways that we can really grow the field of science in injury and violence prevention.

**Dr. Greenspan:** I would agree, and we've had a number of conversations about, you know, how we can and possibly bringing back some of those earlier awards, and given our resources, whether that's feasible, and a, good investment. I don't think we've come to conclusions yet, but that is something really on our minds.

**Dr. Hargarten:** Just an example is we were recently awarded a grant through National Institute of Justice (NIJ) that specifically asked for junior members to be included into the application. I think that was relatively straightforward to do, and it was something that we were prepared to do. I think that's one way among many to strategize. In this case, it doesn't create any additional funding. It's just that you're saying to the relatively senior researchers, "Bring in some young people, and explicitly tell us why this is soon to be important." I think that's a good opportunity [several in the room call out that they like this idea].

**Dr. Allegrante:** I just wanted to endorse that, because I've been concerned that we're losing sort of a generation of new investigators on the NIH side, given the competitiveness of K awards and, you know, more people competing and less dollars on the table. It's a particularly acute problem in CDC, I think, and I think injury is an area where you may not be recruiting that pipeline. I think it's actually worth a broader discussion with the BSC at some point. But, I do think you can, in your framing of the agenda—this is going to be the living document, whatever you call it, and I think investigators will know—I hope they will understand that this is going forward over time. It's going to be flexible. But, the bigger question that I think we could have discussion about is: How do we start doing more to ensure that there is a next generation of people that will be sitting at this table and staffing this center?

**Dr. Greenspan:** Why don't we table this for now? Maybe that's something that we can start bringing up this afternoon under the area of BSC-initiated discussion. I think that's a great idea. We may not have time to fully discuss it this afternoon, but it's certainly something that we can bring up then. I think it's something that we're all concerned about, so I think it's good.

**Dr. Houry:** That's why we've carved out time on the agenda this afternoon for specific things like that so that we have great direction from you, and ideas on things like this.

**Dr. Sleet:** Just to close that down, Steve, your question is really a mechanism question. Whatever mechanism we decide to use—it could be Small Business Innovation Research (SBIR), it could be K awards, it could be new investigators cooperative agreements, R01s—the agenda still sits there. Investigators or students, depending on the mechanism that we use, could still apply against these.

**Dr. Hargarten:** I wasn't trying to diminish that, David, in any way, but rather explicitly stimulating that with the call for bringing in a junior investigator to the team. I think sometimes that gets lost. The junior investigator is not experienced enough to know, "Am I tracking right?" That promotes that mentoring and fostering future generations.

**Dr. Greenspan:** Anything else we want to bring up on gaps before we move on to the next question?

***Question #3: Is the mix of research (e.g., etiologic, intervention, translation) appropriate for each topic area?***

**Discussion**

**Dr. Houry:** We don't do ergonomic research, engineering research, stuff like that anymore. There's really been a move away from the entire agency. I know that comes up sometimes, because we used to have more on ergonomics and engineering.

**Dr. Feucht:** Two thoughts on this. One, there have been references to a couple of documents that I can send Tonia. Folks may be familiar with either or both of these. One is something that the Office of Management and Budget (OMB) pushed out years ago now, and I think some agencies adopted in some ways and others found it interesting and made it work. That's the notion of a tiered evidence framework. It's particularly, I think, a particularly useful framework for thinking about evaluation research. It incorporates language from something that was raised earlier, sort of innovation. Research and development. Developing new strategies all the way up to taking things to scale. The kind of thing that you want to talk about trends leading into policy and widespread practice. Taking things to scale. So, a tiered evidence framework, I think, is a useful device for thinking about and talking about different research strategies for portfolios that may be in different stages of development. The other sort of point of reference is a couple of documents—well, one that's out and one that's in the works—one that the Department of Education and the National Science Foundation produced around education research. It's their—this isn't the precise title of it—it's their standards of evidence. So, how do you decide how much process evaluation or sort of background research to invest in before you start investing in more rigorous designs, and how do you think about where you need replications and where you need competing studies of competing interventions. So, standards of evidence is kind of the catch-phrase that's emerged. The Department of Justice is developing a similar standards of evidence taxonomy, if you will, to think about, you know, just to sort of help organize and help us articulate to our grantees and our grant applicants, "Here's the range of things and here's where we think we are in this program area, and these are the kinds of investments that we'd like to make in the next several years in this program area as compared to another program area." I'll try to get links for each of those and send them to Tonia.

**Dr. Greenspan:** That would be great. Thank you. Any other thoughts about the mix of research that we're proposing in this research agenda? Did we hit it?

**Dr. Hamby:** I thought that it was a pretty good balance. I mean, I think it's something that is very challenging. I do think that in the field, you probably are best known for your focus on prevention science and for translation. But, I do feel like, and this has already come up in some of the discussions, that there are a number of places where understanding of risk and protective factors and even just basic prevalence rates, as you were mentioning earlier, are still really at a very preliminary phase. And so, you can't abandon that. We talked a lot about that in the violence workgroup, and we struggled with it. Obviously, it would be wonderful to dump a whole bunch of money in all of those, but overall, I thought that that was something that was a strength of the document, that it kind of clearly highlighted all three of those. And I think for people like me from mainstream academics that the piece that they neglect is the translation piece, so I think

that that's an important role for CDC to have like, "Hey, it actually matters if anybody actually reads this."

**Dr. Greenspan:** So, are there places that you think that we can improve what you're saying about translation?

**Dr. Hamby:** Well, the idea that I—this is a little bit—it's more pertinent to your questions. The only other comment that I had is really, again, about the sort of framing of it and making it accessible. The reality on the ground is that this is already 32 pages, and a lot of people are not going to read that 32 pages. Really truthfully, if I hadn't been assigned it, I probably wouldn't have read the stuff on motor vehicle accidents and stuff. I would have jumped to, you know, like the part that is most related to me. But, I might miss some of the discussion that we were just having about crosscutting issues like traumatic brains injury and things like that, or why this is here and not there. And so, I would just really suggest that, you know, not only that you add some sort of preamble, that you really cross-reference those sections maybe after each place in the problem description, "If you want to know how this compares to our other priority areas, click here. If you want to understand why we are focusing on sports-related injuries, click here." You know, things like that, and make it so that they can't really miss it. And then the other place to put all of that would be in your Requests for Proposals (RFPs), because those are the things that people like me like read over and over and over again trying to get some little crumb of insight about what the magic word is to use in my application. And so, I think a lot of people don't even necessarily realize that this document, these documents exist, and that would be a place to raise their profile on the translation side.

**Dr. Allegrante:** Yeah, I think you need a thoughtful essay up front and I think you need to probably include something about the process of the development of these areas. I think you can address a lot of these issues that way.

**Dr. Greenspan:** As we said at the beginning, the intent has always been to develop some kind of preamble/executive summary. We were waiting for this to kind of percolate closer to completion, and actually, I wanted to hear the discussion because I figured I would get lots of good feedback about what should be in there, which I have. So, I appreciate that. Thank you. Any others? Steve.

**Dr. Hargarten:** A couple of comments. Again, building on these comments about what this agenda is about and what it's maybe not, emerging issues, elder abuse, maybe one to think about. Again, maybe in the preamble discussion to stimulate that, because we're going to be experiencing a boom in that population and I think we're going to be experiencing some issues there. Secondly, I may have missed this, but technologies and the way they influence youth violence. I find it absolutely fascinating. We had a shooting in Milwaukee that apparently started on Facebook. I don't pretend to understand how that happens, but it's happening. In the technologies that lead youth to make good decisions or not so good decisions. I think we have a lot to learn, and this is the third point, globally. We have a global research forum on violence with the National Academy of Medicine and we have a lot to learn from Kenya and its usage of technology in their political turmoil that existed a couple of years ago. So, I'm wondering, how does that get encouraged, stimulated, to look at technologies and to look at where other groups and other research activities are going on around the globe

to stimulate partnerships beyond those here in the United States. So, I'm wondering how that might be frame and done in this research agenda.

**Dr. Greenspan:** So just to answer the global question to start off with, I think that's a really good point. One of things we struggle with is that our budget is a domestic budget. So, we do have global activities, but they're funded through the CGH, or private foundations, or through the CDC Foundation. So, we did make a conscious decision not to include global in the research agenda. However, you're suggestion of how what we know about global can influence our domestic agenda is an important one. I think we haven't really discussed that as part of this. But, it's something that we should consider.

**Dr. Samuel Forjouh:** Talking about globalization, I think there is a lot to be learned from developing countries, for instance. In terms of motor vehicle injury prevention, there have been several evidence-based interventions that started in the US, but they have been enhanced in developing countries that we can bring back here.

**Dr. Houry:** So, what I think in response to the global is we agree with you Steve and you Sam. I think Arlene framed it that, particularly if you even look at the House mark-up that specifically says we should not be doing any global injury and violence work, and of course, we don't agree with that. But, what we feel that we can do is the work do domestically can translate globally and vice versa. There's a lot going on globally. So, when we framed this research agenda, we kept it broad. You'll notice that we didn't say US or not other countries, because we do believe there's lessons learned both ways. When we look at our program that was funded through the President's Emergency Plan for AIDS Relief (PEPFAR) or our global safety work that's funded through the Center for Global Health, a lot of this work, whether it's on restraints, or policies, or violence, or some of the community level interventions, those are things that can be studied and applied globally and, again, both domestically. With regard to technology, that's in there. Maybe we could enhance it a bit more, and that's something that Jim, who is out today, put in there too. I think it's—part of it is just shifting our generation. I'm on Twitter and Facebook, but not nearly as much as my, you know, well, my six year old is not on Twitter and Facebook, but she's all over the iPad. If you look at, you know, tweeners and how they communicate, people are having conversations. So, when we're looking at how violence is happening with our younger groups, technology really does play into like you say with the shooting and everything like that. So, that's in there because we really think it's a growing emerging issue, but it's something we might be able to amplify a bit.

**Dr. Simon:** I want to elaborate on the point that you were making, Steve, about emerging issues and you gave a great example in elder abuse. That example is one that we actually spent some time talking about. We have a core group of staff that are really trying to move that area forward, contributing to, you know, building appropriate partnerships in the field, clarifying some definitional issues, and enhancing surveillance around those issues. So, we are starting to make progress there. Because of the way our funding lines come in, we don't have, beyond our broader injury prevention line, we don't have a specific funding line that we can use to move forward on an elder abuse research agenda. So, I'm thinking that it is one topic that I would like to reflect in the framing of the violence section. So, it's something that we can give some more thought to in terms of how we—I think when we're talking about this as a living document for the next three to five years and we want to be nimble, we should raise this issue of emerging

issue and funding lines potentially, and that we are interested in refining over time as opportunities present themselves.

**Dr. Hargarten:** That's a great comment. Thanks. I agree. But, again, maybe framing the call for research is that for youth violence or interpersonal violence, are there implications for other populations as part of your work that's focused on interpersonal violence. But, we know that child abuse, interpersonal violence, elder abuse might have an environmental linkage. And so, the call may be restrictive because of the funding issues, but nested in the call for research is implications for other populations or implications for other environments. I think that's where you can be creative and I really appreciate that comment about the limits of global research. NHTSA went through this for years, and they saw a way to start to change that and, again, for us to continuously do that is really important. I like the way it's sort of being nested in there without saying or not saying it. But again, calling for some of that might be helpful, with Sam's comment about pulling in researchers or co-investigators from other parts of the globe might be another way indirectly of suggesting that.

**Dr. Houry:** We agree with the importance, but we also have to be responsive to what our appropriations are because I like the Injury Center and I'd like to see it remain.

**Dr. Mickalide:** The question that you're posing relates to etiologic factors. Is there an appropriate mix? Given that one in six of us who live in the United States has a disability of some sort, whether it's cognitive, or physical, or emotional, I'm struck by the fact that there is no emphasis whatsoever that I can see in the research plan to put any special attention on people with disabilities, which may put them at disproportionate risk for motor vehicle crashes, or falls, violence. And I would just like to have a discussion about people with disabilities as one of the high risk groups for violence and injury.

**Dr. Greenspan:** I think that's a really good point. We talk about special populations and targeting, but we often don't give enough emphasis to people with disabilities. Any other comments and thoughts? I think it's something we can consider as we go through and revise, and think about how to include—whether it's included more in the framing or included within specific topic areas. We point out high risk populations, but I think that's something that should be addressed.

**Dr. Houry:** I'll add a comment and then open it up to the SMEs to really respond to this, too. I think one of the things that I've learned with CDC is that there's different centers that focus on, you know, different things. So, this is the National Center on Birth Defects and Developmental Disabilities (NCBDDD), and so we've been working with them, like there was some work on sexual violence and disability. So, we've been looking at the overlapping sections. So, what I think we need to do when we look at this research agenda is what is truly within our lane, you know, because you're right, when you're looking at motor vehicles, the prevalence within the population, the impact with elder abuse and things like that, how does this fit in and how can we honor that?

**Dr. Allegranте:** Your question, I think, reminds me again of sort of the broader issue of the disparities that we see across communities. And I wondered whether you had a lot of discussion and whether it's reflected sufficiently in the document, the focus on eliminating disparities around these issues whether it be sexual violence, or domestic violence, or other issues. It goes beyond special populations to really talk about what are clearly these disparities that we see.

**Dr. Simon:** It was something that surface a lot in some of our discussions, and we did try to include language along those lines to represent that—to highlight disparities. We tried to—one of the pieces of feedback that we got along the way was when we're talking about high groups or vulnerable populations to be clear and to try to give some examples. So, we have tried to do that. But, we welcome, you know, suggestions for additional ways to do that. I think that's a place where we can look to see about adding disabilities in particular when giving examples of vulnerable populations. So, as we look through, we'll look for opportunities to do that.

**Dr. Greenspan:** Any other comments about that as an issue? Any other comments from the phone on either disability, or disparities, or anything else in terms of gaps and in terms of the balance of our research?

**Dr. Sleet:** Just to answer for our section on motor vehicle, Bullet 3 on Page 14 does specifically address disparities, and with reference to a mature program that we have with the American Indian Tribes. So, that's covered. For TBI, the last bullet which focuses on care, we know that TBI survivors also are at increased risk for further injury. So, that's part of that fourth pillar for TBI. So, at least in those two areas, I think we're covered.

**Dr. Hamby:** I would like to endorse in the preamble and elsewhere that disparities is an issue. It is something that we talked about a lot in the violence meetings. So, one thing I would want to also emphasize regarding, for example, tribes is that—to be careful about getting into numbers games and about playing vulnerable populations, comparing them in terms of like size. Because I think sometimes, and the American Indian population is a good example, it's very small by a lot of statistical measures compared to the total population, but the burden of violence on that community still has a really outside impact on the burden of some of these other, you know, unintentional injury issues. So, I think you could make the argument that the impact on that community as a whole is even greater even though it is smaller. So, I think you have to be very careful on the wording. That was something that came up in our conversations about, you know, using examples based on sort of the size of the vulnerable population. We tried to move away from that.

**Dr. Houry:** I think that's something we can look at too when we're talking about some of the translational aspects, because, you know, for translating to different types of populations, how it's implemented and if it's as effective can really be different.

**Dr. Hamby:** Right, you know, I mean, you know, I mean some of the other examples of like small ones, you know veterans and you know, there are lots of vulnerable populations that have needs that are not going to be served by one-size-fits-all approaches. I think you could almost make an argument that it would be more important to think about how unique their issues are and how much they're going to have to specially tailored programs or analyses of the risk and protective factors more so than that, because, you know, those groups are extremely important to support.

**Question #4: Does the Research Agenda have the potential to lead to a meaningful public health impact? Does this advance the topic in at least one new or innovative direction?**

- Will the research questions posed lead to answers that are important and timely?***

### **Discussion**

**Ms. Castillo:** So, one of the things that I think is the important vector for meaningful impact is that somebody is going to take your recommendations and put them into action. And so, in order for that to happen, the research questions have to resonate with, you know, the policy makers or the communities. And a lot of what you've included in the agenda deals with the health system. This goes a little bit into the next question about what suggestions for dissemination. If you haven't planned on it, I would encourage you to seek input from key stakeholders that you anticipate are going to use your results to make sure that you're asking the questions that are important to them. Because it just positions them to have engagement, as well as to be ready to act upon it. On the flip side of it, and we talked a little bit earlier about how you might frame the FOA to meet your needs, one of the things that we've begun doing at NIOSH is including in the application process that the researchers draw the pathway, "This research finding will lead to impact through this." So, you are forcing them to think through and to create those partnerships. There's also a potential for it to be criterion in evaluating.

**Dr. Greenspan:** Good point. Any other comments about public health impact?

**Dr. Hamby:** I would say something similar to what Dawn said and similar to what Steve said earlier about—it came up in the sexual violence portfolio review, too, about just making sure that communication with the broader community is written into your RFPs or written into your other initiatives. You know, at NIJ, they now have that as like a separate section in their application as separate from the academic deliverables. It's a process. You know, I was just recently on one of their panels and there were a bunch of people whose idea of disseminating to the frontline community meant like going to a faculty brown bag luncheon. We're talking about normal people. But still, I think you can nudge people in that direction and really make them think about preparing their own translation documents to make sure that that is getting across more. I agree with what Dawn said. I think when you start shifting them in that direction that a lot of times, they see immediately where some of the gaps in their own work are, because they understand that they haven't made that step to like now what would you do with this information?

**Dr. Greenspan:** Any comments or questions from phone line on whether the research agenda as currently written? The potential to being able to lead to meaningful impact? You know, did we hit a balance in terms of innovation and direction?

***Question #5: What suggestions do you have for a dissemination strategy? Who should we be targeting?***

**Discussion**

Since discussion seems to be moving on toward dissemination,—I sense that there will be more of a robust discussion around dissemination. I think we've hit a lot of the public health impact with some other previous questions. I'd like to move toward suggestions for dissemination strategy, and along with that, you know, we struggled with, you know, do we ask for feedback and if so, to whom? How do we manage that? How do we invite important key stakeholders, but not send it to everybody in the world and have this out of control? So, we are looking for some feedback regarding the kind of dissemination.

**Dr. Allegranте:** So, I had some thoughts on that. I was wondering what you were planning in terms of reaching out to, again, various stakeholder groups. I think we've been hearing about the stakeholders who would really have use of the deliverables or the products of the research agenda, but I was thinking more along the lines of people who are going to be competing for the RFAs that constitute this research agenda. I'm wondering whether, you know, a set of forums at the American Public Health Association (APHA), for example, or other key societies would be important as part of a rollout. I think you can get forums where you could comment from the floor on the agenda as it exists. I wondered whether groups like state and territorial directors—putting it in front of that stakeholder group could yield potentially important adjustments to the agenda. I also wondered whether, because there are several journal editors in the room, including myself, whether there is any plan to publish the research agenda in some of the key journals. You know, essentially I do think it would be useful to have a period, you know, something like a period of public comment on this going forward. And again, I think the forums and the professional and scientific societies might be just one venue for that, but there may be others.

**Dr. Houry:** So, we talked about this. We talked about this a little bit in the senior leadership team. This is where I think this question really arose to make sure we spoke with you about this to get your input, and I guess it's: At what point do we seek that feedback? Is it when we say this what we're moving forward with and we'll do some adjustments, you know, over the next few years. Or, do we do it prior to releasing it? That's where we really went back and forth with the group because we wanted you, as the BSC, to do the line edits and to really do a deep dive. We weren't sure we were ready to share it with 400 of our closest friends to edit, you know, at that line level versus the questions, you know the overarching questions. So, one of the ideas that we were tossing around just yesterday was, you know, with our Injury & Violence Prevention Network whether to do a call prior to release and to just hit the big questions not the text below to see if there's any other gaps that we're missing and is this responsive. And then, potentially after we do publish it, roll it out to then add a lot of these other societies. We had not thought about journal publication, and that's a great idea to really get people to—I'd love to think people are looking at our website all of the time, but I think, you know, a journal might be a great place to do that.

**Dr. Mickalide:** I think we do a great job in this country in terms of, you know, across all of the public health arena, in terms of research informing practice. But, I think we do less of a good job with practice informing research. So, I think that for all of these injury risk areas, we should be reaching out to groups and individuals who are at the

community level conducting research in their communities and see if there are additional questions that have not been posed.

**Dr. Greenspan:** And I will say, actually, when we started talking about dissemination and whether we should be reaching out before it's published, that was the first thing that was brought up was that, you know, at least with the BSC we're reaching out to the research community. But, we really have not reached out to the practice community. And so then the question really begs, if we are going to reach out to the practice community, who is it that we reach out to and will that be covered with IVPN, which does have a number—of practice-based organizations? If not, then who do we reach out to?

**Dr. Houry:** And I think one of the things we were struggling with, too, is we want people to understand the framework this is coming from. This is not to then bring in a new topic, or a new field, or what people are wrestling with, you know, in their communities. It's really staying true to, you know, the directions that we have been going in at CDC and to take it to the next level. So, I think that's where we struggle with: What is the right group, and what is the right number, and what is the right time?

**Dr. Hamby:** Yeah, I think those are really good points. I mean, even just not even having to be the person that would be doing that, I'm just sitting here like tensing up at the thought of like all that input. You know, input's great and everything, but you could, I mean especially if you want to keep on that very aggressive timeline. Because I think, I mean, and I totally concur about the importance of like practice to research communication and making sure that there is some—that stakeholders feel like they have some sort of access, but you know, at some point you just have to call something done. And if you really want this to be sort of timeline and to help you be more flexible and move forward, I mean, the size of that stakeholder community is nearly infinite and you can't—there's no way you're going to be able to let all of them participate. And frankly, some of them are not necessarily going to have the CDC's best interest at heart when they, you know, I know people will be shocked, but sometimes, you know, even myself and my colleagues, can express things that are more in line with our self-interests. Yeah, I know, it's shocking. Ha ha. You probably have never encountered that. And you know, so there are going to be things that they don't understand like why they are the way they are. You know, and their thing is going to be dating violence prevention and they want to know why that's not, you know, a particular issue, which is great, but you know, you are not necessarily looking to operate at that level of specificity. So, the other thing you run the risk of is if you get all of this feedback and you ignore 90% of it, then are they really going to feel like they have more buy-in than they did before you asked the questions?

**Dr. Greenspan:** So, were you in our on our meeting at senior staff? These are really the issues we were grappling with.

**Dr. Allegranте:** I get your point, Sherry. I do want to push back a little bit in the sense that, I mean, I do, you know, I'm really enamored of this notion of Jeffersonian Democracy and participatory democracy. And you know, over the last, you know, few decades we've seen this play out I think in some ways very successfully and productively about the goals and objectives for a national—the Healthy People road map. NIH right now has been conducting a road map for NIH. It's all web-based postings and people can comment. I mean, there's some element of that kind of participatory democracy that I think is really important here, and that might inform adjustments down the road. But, I do agree, it's challenging to think about, you know, loads of feedback coming in. What do you do with it, and how do you adjudicate it, and what do you use, and what do you, you know, leave behind?

**Dr. Mickalide:** Having managed 600 comments over a weekend for the Healthy People, you know, 1990 objectives or 2000 objectives, I echo that entirely. And 90% of the feedback may not be on target, but 10% might. So, my recommendation is that it is open for public comment and that it be done so in a relatively short timeframe so that people can seize the opportunity, with the recognition that not all of their comments are going to be incorporated. I'm particularly interested in the national organizations, involving the national organizations, who have Directors of Research or committees on research to weigh in. These include such organizations as the Society for Advancement of Violence and Injury Research (SAVIR). The National Safety Council (NSC) has a research arm. The National Fire—well, fire would not be relevant, but there are organizations, the Insurance Institute for Highway Safety (IIHS) for example, that have a research focus that may appreciate the opportunity from a non-academic perspective to weigh in.

**Dr. Hamby:** Well, just in terms of moving down from principles to concrete, I think the IVPN idea is a good idea. I mean, if you felt like you didn't get what you need, then you might like think about next steps. But, I don't know if I would necessarily—and some of, you know, some of the people, at least in the violence field who run those national organizations get money from you folks that is a pretty non-trivial amount of their budget, and I don't have to ask them. I feel like I could make a pretty good guess about what they're going to say, which is that they want to make sure that the line that, you know, they're used to getting is like well-represented in research agendas. In some cases, I mean, I can only speak about violence. In some cases, I think they would see where they're going—their line is going to still come from. In other cases, I think they might be anxious about that. I'm not sure if you're—I don't know if you would be doing yourself a favor to invite—and a lot of them are on that IVPN thing anyway, right? So, if they want to say something, they'll have their chance there.

**Dr. Houry:** I'd say that's why I think that's why we were leaning toward the IVPN, because it was really hard to define who is a key stakeholder and who is not. If you pick eight and you leave out that ninth one, that can cause a lot of harm. This way, it really does give value to the IVPN, and SAVIR's on that. National Safety Council is on it. APHA is on it. And then when we, you know, we could do it in that way in a short timeframe, relatively controlled before we really release it. But then, when we release it and we're framing it, talk about we are open to suggestions from the field in regard to changes. But again, when we're talking about changes, we're not talking about, you know, daily basis or anything like that. It's just for consideration as we continue to move and look at emerging trends.

**Dr. Greenspan:** And I think to your point, Sherry, about people being worried if they don't see themselves in there is that, you know, this is our research questions. So, some of the lines are really also programmatic lines, and so what we need to make sure is that people understand is this is where our research is going, but we have a whole program that consists of research, programs, surveillance and so to maybe allay some fears that these are what we see as the most important research directions for us in the next three to five years. And so, again, framing is going to be very important.

**Dr. Hargarten:** I have a question. I was wondering about dissemination. You're disseminating the research agenda to receive input? That's what I'm wondering. I've been hearing that you were wondering about that versus disseminating once it's done, you're disseminating to key stakeholders.

**Dr. Greenspan:** We're talking about both, and the question is, if we're disseminating first to get feedback, who it is that we reach out to. How do we kind of control that so that we're not reaching out to the entire world and getting things that are not relevant, and for a long period of time, and that's going to delay putting it out? But, then the secondary question is, one we do roll this out, you know, what should our dissemination plan be to make people aware of it, to increase kind of knowledge and interest? And that's the other piece of it.

**Dr. Hargarten:** So, I'm glad you clarified, because I was focusing on the second piece.

**Dr. Greenspan:** Yeah, and I think when I sent out the questions, that was the initial focus, too, and then the thought of "Okay, maybe we do need more feedback."

**Dr. Hargarten:** So, just for that second piece, Arlene, I think disseminating it to the trauma centers, to the poison centers, to enhance their understanding of injury prevention research opportunities that may shift their very traditional areas of interest. So, I think those are key ones to pull in given the nature and scope of this. Two is, again with my earlier comment building on Dawn's earlier comment about pulling in healthcare agencies and organizations and perhaps, again, stimulating the framing that this research agenda is intended to pull in healthcare systems and public health agencies to perhaps working together towards these kinds of activities, again, will maybe bring them together to say, "Boy, we have an opportunity now to do a research program. Let's apply together and do this." So, that's another, I think, grouping that I think has distinctive opportunities for us.

**Dr. Timmons:** In just understanding the concern about maybe leaving out key stakeholder groups, I would also consider some of the professional societies and organizations that deal with injury and trauma a lot. I mean, a lot of people have both policy and research arms. The American College of Surgeons (ACS) Committee on Trauma (COT), for example. Then the neurosurgery and neurology professional societies. A lot of them have already some type of infrastructure for reviewing research and policy on injury prevention and injury in general. So, it may be worthwhile to reach out to those stakeholders as well.

**Dr. Allegrante:** Just one other recommendation that the Association of Schools and Programs of Public Health (ASPPH) be one of those to which you disseminate, and there's the Friday Newsletter that reaches a large group of public health researchers.

**Dr. Houry:** That's a great idea, particularly as we try to grow the field.

**Dr. Greenspan:** Come to the microphone, Grant.

**Dr. Houry:** You can sit at the table if you'd like, Grant.

**Dr. Baldwin:** One of the questions I have for the board is: Is the protocol that we've outlined a model that would be galvanizing for the field? Because part of it is how we deal with the 90%, but also, this is intended, because of where we sit within the federal government and the parameters of what we can and cannot do, part of the protocol that I think all of us want to come up with is one in which partners can be galvanized to both do work that's outlined in the research agenda, but also, you know, communicate about the research agenda to parties that we cannot speak with to educate them.

**Ms. Castillo:** In terms of the galvanization, I think that you would be hard-pressed to come up with a document that in itself is going to do that. I do think the framing is important. But, this is where we get to the outreach and inviting input. So, if you're concerned about the input you're going to get, so you don't go out broadly, then you're not going to galvanize those groups. They're not going to feel like they're a part of it. And I absolutely appreciate this concern about getting volumes of input and potentially disenfranchising people if you don't address it. I would share with it that within NIOSH, all of our research agendas have a public comment period. We don't usually get volumes. I specifically saw input on the traumatic injury one, and we got 16 comments. But, they were very, very useful. There were a couple that we didn't respond to for our reasons, and we actually went back, you know, and had personal discussions with the individuals as to why we didn't. There was a recent research agenda that did get volumes of input, and hallelujah because there was something that we were tweaking and causing angst amongst the group, and it was important to know that and to respond to it, and it facilitated a discussion where we could work through that and come to a common understanding. So, in terms of galvanization, again, I think that you're going to have to specific—you should reach out to the practice community—those people who you want to act upon and engage them. I would say that I'm not so sure, perhaps you have a different set of stakeholders than us, but I'm not confident that you're going to get more volume than you could deal with, especially if you have a short time period, because only those that are most invested—and then the framing piece. We've all talked about how important it is for them to understand the context in which the agenda is put forward.

**Dr. Mickalide:** This would make an excellent submission for a late breaker for injury and violence in the Injury Control and Emergency Health Services (ICEHS) section at APHA. I believe the call is still open, and that would give you an opportunity to really hear from the field.

**Dr. Greenspan:** I have a question actually for our federal partners. We all have, as we know, limited budgets, and we all have our little niche, but we do have overlap. One of the things that we wondered about is kind of is this a good jumping off point in terms of thinking about co-funding, thinking about ways that we might be able to collaborate with some of the other federal agencies, and how broadly should we disseminate to our federal partners because of that?

**Dr. Mabry-Hernandez?:** I think the collaboration would be fabulous, and whether you use the federal liaisons to circulate or even use the Executive Secretary mechanism to circulate it through the agencies, so not only do you have just increased awareness, but a chance for engagement or response. I think everybody realizes when you put these types of documents out for response that you're very limited in what you can do, but I think the secondary benefit of awareness and that iterative process is of great value.

**Ms. Castillo:** So, I do think that the document is a good jumping point. However, I'll qualify that with I think you've been very thoughtful about identify your niche and not overstepping other bounds. So, when I look at this, I see your niche. I see how it complements my niche. But, I don't see a lot of overlap, so I'm not going to be, you know, raising my hand saying, "Let's co-fund." So, I think it's just important to recognize that. I do think that it is a good stepping point for discussions. And then the other thing in terms of framing it, and I think this was brought up earlier, I think it's important to frame the—your niche and the knowledge where you have specifically where you have stayed out of someone else's. It just heads off the comments about that.

**Dr. Feucht:** It is a nice starting point. You were saying something earlier about what to call it. It's called a "research agenda." NIJ produces a document not real unlike this several years ago, and we haven't done it again since. But, we referred to it as a "prospectus" in the sense that—I don't know, the same way that an investment company might say, you know, "Here are our lines of business. These are the things that we're in, and if you want to join us, or if we can be of service to you, or we can focus our partnerships around these areas, this is what you need to know about us. These are our strengths and our areas of focus." I could imagine this being part of a calling card, you know, as you visit and meet with folks. There may actually be a short, you know, sort of a bulleted version of this document that you could use as a really brief kind of executive summary prospectus. You know, kind of a four-page fold-out of, "This is who we are. This is what we do. This is where we make our stand. This is where we make our investments."

**Dr. Greenspan:** Thank you. Good suggestions as we consider the framing and what we want to include in an executive summary. Any other comments on the phone or on the floor?

**Dr. Hamby:** Yeah, I just had two comments. Regarding Grant's comment about galvanizing, I think for that it goes back to one of the issues we started with very early in the day about whether this is like an agenda or this is like priorities, and what galvanizes people is more aspirational type of stuff. So, what we've been talking about in terms of a preamble I think is really essential and important in terms of some of the framing, and some of the comparisons across areas, and why things are in there. But, that still doesn't really speak to having this aspirational piece, and if you could somehow articulate, especially like how you hope this would improve what's been done in the past, I think that's some sort of aspirational statement. And then in terms of the dissemination and what Steve was talking about, I don't know if you've considered, and of course I realize there's you know always money, money, money, but hosting some conference of your own or really something where you could participate in this framing and maybe bring all of these players together and have, you know, create more of a community of practice with researchers and practitioners, and create a forum for that yourself. Justice does their own conferences sometimes, and I think that's a great place to sort of reach your constituencies. Like I for one, I don't ever go to APHA and I don't even really feel,

you know, much of a—I mean, I just don't think you're going to hit—like having some forum that 20 people—I mean, if that's your goal is to really reach out broadly, I'm not sure that going to some research-focused conference and giving one symposium is going to necessarily get you that much further than where you are now.

**Dr. Greenspan:** Thank you. Yeah, I think that's a good suggestion. Obviously, funding and timing, but maybe it's something we might do virtually.

**Dr. Hamby:** To impact the debut of this agenda, something that would, you know, really kind of organize all of your priorities in one venue and reach across all those stakeholder communities. It doesn't cost that much money if you charge people for some of the cost of it. I think you could do it for under \$100,000.

**Dr. Greenspan:** There are lots of approval things that we need to go through, so it's something that we'll have to consider. But, we might be able to do it virtually. I'd like to invite some comments or questions from people that are in the audience. I know a number of people sitting back there have been involved in writing parts of the agenda. They've done a lot of the heavy lifting, so I just wanted to see if folks want to kind of make any comments or have any questions for the BSC. Nothing? Okay. Steve.

**Dr. Hargarten:** Just a comment. Building on Sherry's what I think is perhaps maybe an increasingly provocative suggestion is to convene a group in DC to really pull in the representatives from key organizations. We know that they're here. We know that they're invested. And I think it would be a conscious effort to really get input for the research agenda, but it has also some corollary implications about pulling this group together about a national injury conference, which we don't have and we need to have, and pulling in these key stakeholders to start to really pull in the central leadership to galvanize our field and to generate additional ideas perhaps as a result of this key meeting. So, recognizing that it is a challenge to do this in the atmosphere of regulations and so forth, but it seems very, very timely and very, very essential to be able to do that now in a critical juncture that I think we all recognize exists.

**Dr. Greenspan:** Well, great. I think we have a lot to discuss.

**Ms. Amy Peeples:** I think we all agree in principle. It's a matter of figuring out how to get it done under current conference restrictions that are placed on the agency.

**Dr. Mickalide:** I want to thank you, and you, and you for having this two-hour discussion. This is precisely what the BSC was asking for in the last few times that we've been together—to be able to weigh in on something that has had some thought behind it, but where we feel we can make some constructive contributions. So, I just want to say as a BSC member, thank you.

**Dr. Greenspan:** I would like to thank all of the BSC members here, as well as the BSC members and federal liaisons on the phone for a great conversation. I think you've given us a lot of good feedback, a lot for us to think about. I'm not sure we know how to answer every single thing and every point that you've made, but I think you've brought up some great points and we will answer very quickly.

**Dr. Houry:** I would just like to echo our thanks to you all, because you asked for participation and the ability to discuss more, and so that meant a lot more work for you. So, I know that we sent you this huge document to then, you know, review in advance so we could have this discussion. So, I was really inspired and enjoyed the past couple of hours. I thought it was really helpful to get more guidance on these issues, and so we really appreciate everybody's time and preparation for this.

**Dr. Greenspan:** Given that, I think we've all earned lunch.

### **Update on Pediatric Mild TBI Workgroup Activities**

**Kelly Sarmiento**  
**Division of Unintentional Injury Prevention**  
**National Center for Injury Prevention and Control**  
**Centers for Disease Control and Prevention**  
**Designated Federal Official**  
**BSC Pediatric Mild TBI Workgroup**

Mrs. Sarmiento said that the NCIPC BSC established the Pediatric Mild TBI Guideline Workgroup to develop clinical guidance on the diagnosis and management of mild TBI among children and teens aged 18 years and younger from both unintentional and intentional injuries. Dr. Shelly Timmons, BSC member, chairs the workgroup.

Since its last update, the workgroup has made significant progress. The workgroup identified Executive Authors. The authors are leading the development of the compiled systematic review and drafting of the recommendations.

The workgroup has completed the systematic review report, which summarizes the evidence of each of the six clinical questions. The group began with over 12,000 abstracts. Because the abstracts overlap the six clinical questions, the work equated to over 54,000 abstract reviews. The workgroup identified over 1700 full-text articles and synthesized qualitative and quantitative data for over 78 articles. Findings for each question are compiled into the draft systematic review report.

Ways to gather public comment on the systematic review report are being explored, in accordance with federal guidelines. Public comment is part of the IOM-compliant guideline development process.

The workgroup initiated the process of drafting recommendations. The recommendations will be separated into three categories:

- Diagnosis and Identification: How do you know if it's a concussion?
- Prognosis: How do you predict recovery after a concussion?
- Acute and Long-Term Treatment and Management: What do you do for children with a concussion, such as "return to school" and "return to play?"

The workgroup has initiated repeat literature reviews to ensure that the guideline will incorporate the latest science. The methodology for this review will be the same as the initial review, which considered abstracts between 1990 and 2013. The repeat review will incorporate 2013 through July 2015. This work will take place in a three-month timeframe, and the systematic review and recommendations will be updated based on the results of the review.

The workgroup members maintain a high level of commitment and feel strongly that this effort will contribute greatly to the field. The last step of the project will be to finalize the recommendations in a final report that will describe the evidence review and recommendations. It will be submitted to the NCIPC BSC for review and vote prior to the next in-person BSC meeting.

Since the last BSC meeting, which included a top-line description of dissemination and implementation, the workgroup has drafted a detailed plan for dissemination, translation, and implementation. The division has set aside funds to support these activities.

### **Discussion**

**Dr. Mickalide** asked about the extent to which this process informed the research questions in the research agenda.

**Ms. Sarmiento** answered that she was not involved in the TBI research agenda development. CDC staff were, however, kept up-to-date on the available research and have seen aspects of the workgroup's review.

**Dr. Baldwin** said that the team lead for the TBI research agenda development was aware of the full complement of TBI activities at the center.

**Dr. Mickalide** asked to see the dissemination plan, which will help inform the discussion of research priorities.

**Ms. Sarmiento** said that the top-line report was shared with the BSC in December 2014, but the full plan will be shared.

**Dr. Timmons** thanked Ms. Sarmiento and her team for their hard work on this effort. There is a great deal of interest in these guidelines, as they can inform future research and clinical care. She frequently hears inquiries regarding when the guidelines will be released.

**Dr. Hargarten** commended the process of reviewing so much literature and distilling it into a fine-tuned set of recommendations. He asked about an explicit effort to measure the uptake of the guidelines and their use in different sectors, especially given interest in the field. He recalled significant neurosurgical guidelines for treating TBI that were not integrated.

**Dr. Hamby** agreed that the effort had been terrific and could serve as a role model for how to synthesize information into a product that is directly implementable. The CDC has been responsive to the public's needs.

**Ms. Sarmiento** thanked Dr. Timmons and the workgroup members, and emphasized the importance of implementing and using the guidelines well.

### **Update on WISQARS Portfolio Review**

**Sally Thigpen, MPA, Health Scientist**  
**Division of Analysis, Research and Practice Integration**  
**National Center for Injury Prevention and Control**  
**Centers for Disease Control and Prevention**  
**Lead Evaluator, WISQARS Portfolio Review**

**Ms. Sally Thigpen** explained that the goal of WISQARS is to provide a user-friendly, interactive resource for injury and violence data. The system's objectives include helping CDC and the injury and violence prevention field access the data needed to engage in prevention work. The system was designed with these concepts in mind. Since its inception, WISQARS has been an outward-facing, user-friendly data query system for the field. The WISQARS features include statistical information, data visualization, cost analysis, and data exporting. Its modules are as follows:

- Fatal and non-fatal injury reports
- Cost of injury
- State- and county-level mapping
- Leading causes of death and injury
- Years of potential life lost
- NVDRS

The WISQARS portfolio review was the 11<sup>th</sup> conducted by NCIPC. It was conducted through the center-level Associate Director for Science (ADS). Portfolio reviews have a lead evaluator and a workgroup with representation from each of the divisions. The workgroup included individuals with expertise in communications, policy, and practice as well as research. The workgroup had two co-chairs, an SME on WISQARS and a communications expert. An evaluation contractor conducted data collection and analysis. The process also incorporated the division-level ADSs, who provided guidance and advice regarding methodology and other issues, and the BSC.

The purpose of the review was to assess the usability of WISQARS; determine enhancements that are needed and learn how the data visualization is working; determine whether there are additional sources of data needed and better ways to link to data; and determine the training needs of the end users. The portfolio review focused on the following four evaluation questions:

- Are WISQARS data being fully utilized for scientific and programmatic purposes by key stakeholders?
- How can modern technology and innovation enhance the use of WISQARS?
- What are the opportunities to expand the data sources/datasets?
- What training, tools, and resources would facilitate actionable data translation?

The portfolio review process began with a literature review, which helped shape the methods of the review. The next step in the process was a two-level environmental scan, which included a scan of other web-based data query systems within CDC and a simple Google search and analysis to learn how WISQARS is being used. The Google analysis yielded different information from the key informant interviews and presented a good picture of the direct applications of WISQARS. An expert panel reviewed the results of the literature review and environment scan and provided feedback. The inputs to the review included:

- WISQARS
- NCIPC senior leadership, the workgroup, and other personnel
- Evaluation contractor
- Two formative evaluations that shaped new mobile applications
- Expert panel
- The NCIPC BSC

***Question 1: Are WISQARS data being fully utilized for scientific and programmatic purposes by key stakeholders?***

The Google search provided some insight regarding the users of WISQARS and the purposes for which they use it. The analysis consisted of the first 100 “hits” for a search of WISQARS on Google, excluding CDC-related sites from the results. A great deal of WISQARS data are used in social media, as evidenced by a number of Tweets and Facebook posts that emerged in the search. A number of federal, state, and local partners and universities use WISQARS data for a number of reasons. The largest portion of users was NGOs. The most frequently cited WISQARS modules were fatal and nonfatal injury reports. There was also utilization of costs, mapping, and NVDRS.

Regarding use and usability of WISQARS, suicide and firearms were the topic areas that were used the most frequently. Suicide is also searched frequently on the CDC website. In WISQARS, suicide and firearms were often connected; for instance, WISQARS data were used regarding suicide by firearm.

Many WISQARS users summarize the data for their own fact sheets, particularly at the state level. Many other types of reports on a given topic area, such as bicycle helmets or drowning, cite WISQARS as a data source. A number of presentations were included in syllabi for university programs and in training programs. Tribal communities use WISQARS to inform their communities about injury and violence prevention. Other uses of the data include social media outlets and blogs. Many organizations promote WISQARS, especially when new data are available.

Most of the stakeholders who were interviewed also use WISQARS most often for fatal and nonfatal injury reports. They also use NVDRS, leading causes of injury, cost of injury, mapping, and Years of Potential Life Lost (YPLL). Suicides and poisonings were the leading topics for the stakeholder interviews, and homicides and motor vehicle crashes were also important. Stakeholders frequently use WISQARS data to create their own data visualization.

***Question #2: How can modern technology and innovation be used to enhance the use of WISQARS?***

The environmental scan and the stakeholder interviews informed this question. The scan compared 20 websites, 17 web-based data query systems and three information clearinghouses, to WISQARS. Three of the sources were administered by nonprofits, 14 by CDC, and three by other federal agencies.

The 17 web-based query systems used federal data systems, mainly surveillance data and vital statistics, heavily or exclusively. The three systems external to CDC focused on data from the Behavioral Risk Factor Surveillance System (BRFSS). The functionality of the systems varied considerably. Some were more sophisticated than WISQARS and some were less sophisticated than WISQARS. Comparisons were difficult to make in this area.

The stakeholders who were interviewed offered suggestions. Regarding navigation, interviewees wished that the web address were simpler. Many stakeholders recommended adding pop-ups with additional information and direction to WISQARS. The use of Responsive Design principles was also suggested so that the site is easy to read and navigate with minimal need to resize, pan, or scroll. This approach would be helpful for access from different platforms, such as tablet computers or mobile phones. Suggestions regarding data display included:

- Use “heat maps” to show the areas of highest burden (this approach is possible, but may be long-term due to resource intensity)
- Adapt data visualization functions for mobile apps
- Enable users to cut and paste graphs generated by the system
- Make some of the features that are available on the mobile app available on the website

***Question #3: What are the opportunities to expand WISQARS data sources/datasets?***

The stakeholder interviews yielded a number of suggestions. Regarding data variables, the suggestions included:

- Link data to the circumstances of death and area of the body where the injury occurred: occupational injuries, PDO, poisoning
- Regarding firearm injuries: what type of weapon, access state firearm laws
- Poisoning and drug overdose: agent by type and class, multiple prescribers at the state and county level
- Social and economic contexts, particularly regarding social determinants of health
- Cost data: payer source, breakdowns for emergency department and rehab
- Nature of the injury: area of the body harmed
- Population served: institutionalized populations; people with disabilities (PWD); and lesbian, gay, bisexual, and transgender (LGBT) populations were mentioned frequently

The following areas for linking to data were shared:

- BRFSS data, such as on motor vehicle-related issues including seatbelt use;
- SAMHSA data, especially in alcohol- and PDO-related work; and
- Prevalence data regarding psychiatric diagnosis so that it can be linked to acts of violence.

***Question #4: What trainings, tools, and resources would facilitate actionable data translation?***

Many stakeholders who were interviewed were not aware that training and tools were available for WISQARS. The common theme of the comments was to make more experiential learning available, such as via case studies or examples of using WISQARS data to write reports. Stakeholders also asked for examples of how WISQARS data are used and how organizations can use injury and violence data to reach their goals, whether the goals are related to policy, fundraising, annual reporting, or others. Other suggestions included YouTube training videos, which would be accessible without being resource-heavy. A table was suggested to indicate how WISQARS compares to other web-based query systems so that users can learn about other options if WISQARS does not have the data or features that they need. Other ideas included pop-ups and interactive, customizable training.

**Discussion**

**Dr. Hargarten** asked whether it was possible to determine which citations of WISQARS were in the methods of a published manuscript.

**Ms. Thigpen** said that the Google search did not yield that information, but the CDC library included information regarding how often WISQARS was cited in the peer-reviewed literature. WISQARS does not come up as a source often; rather, the literature cites other articles that cite WISQARS or CDC researchers who link to WISQARS data.

**Dr. Greenspan** asked how often the issue of state-based data for nonfatal injuries was raised.

**Ms. Thigpen** recalled that the theme was common in the interview data. County- and local-level data were also mentioned. Stakeholders who were interviewed valued the ability to dig down into the data.

**Dr. Hamby** thought the idea to exclude CDC results from the Google search was inventive, but that approach was not clear in the final report.

**Dr. Mickalide** asked how many total sites the Google search included and how many CDC sites were excluded in order to reach 100 top, non-CDC sites.

**Ms. Thigpen** indicated that 197 Google hits were required in order to reach 100 that were not CDC sites.

**Dr. Baldwin** asked about the primary audience for the WISQARS platform. The primary audience needs will drive decision-making on the sites design, functionality, utility, and content. Audiences such as the general public, practitioners, academicians have different needs and design requirements.

**Ms. Thigpen** replied that the interview groups were selected based on assumptions about the audience for WISQARS. The WISQARS audience is broad and can be considered in a few focus areas: policy, communications, data for research or rigorous evaluation, and practitioners and nonprofit agencies. The interview design ensured that people from each of those categories were included. Internal stakeholders, CDC staff from other centers, and external stakeholders were interviewed. The external group included the main organizations that use WISQARS data, including a limited number of non-federal partners, state health departments, and nonprofits. The Google search was different and mostly captured nonprofit organizations. The interview design had concentrated on state health departments, while the Google search indicated that the nonprofit sector is the largest user of WISQARS data. Her impression was that the WISQARS stakeholders are in the practice world, creating case statements and engaging in policy, advocacy, and fundraising work.

**Ms. Paige Cucchi** noted that the portfolio review did not have access to WISQARS usage data. The number of page hits is tracked, but there is not a good sense of who the users are, where they are from, where they go on WISQARS, and whether they find what they are looking for. This body of research and evaluation will be explored further, as well as questions of who is not using the system and how to reach those people and groups.

#### **Update on WISQARS Portfolio Review: Recommendations from the Expert Panel**

**John Allegrante, PhD**  
Chair, WISQARS Portfolio Review

**Dr. Allegrante** thanked Ms. Thigpen and presented the recommendations from the Portfolio Review Expert Panel.

***Question #1: Are WISQARS data being fully utilized for scientific and programmatic purposes by key stakeholders?***

The comments from the panel focused on creating a more defined vision and strategy for WISQARS:

- The panel agreed that CDC and NCIPC have built a terrific resource in WISQARS, and the portfolio review presents an opportunity to rethink its direction and build on its strong foundation.
- The panel hopes for appropriate research, testing, and evaluation of the conceptual, developmental, and implementation work of the next phase of WISQARS.
- The panel recommended developing a matrix to consider functionality for each of the priority audiences and better defining requirements for use by the different audiences. This work will be challenging, as there are multiple user groups with different needs and requirements.

***Question #2: How can modern technology and innovation enhance the use of WISQARS?***

The panel came to consensus on the following areas:

- Develop more capacity for users to export data and graphics;
- Explore the possibility of more query tools that are capable of accessing and aggregating across the datasets that are contained within WISQARS;
- Improve visualization functionality; and
- Shift the mobile strategy from the mobile apps to mobile responsiveness. The panel commented on the wisdom of devoting resources to the app when, in a resource-constrained environment, it may be more useful to help people use their current devices to access WISQARS. The panel was skeptical regarding whether the app is the best choice.

***Question #3: What are the opportunities to expand the data sources/datasets?***

The panel recommended:

- Establishing an expert working group to identify the various data gaps and potential future data sources for emerging problems;
- Exploring ways to incorporate or bridge other injury-related datasets to inform the technology required to make the system more scalable; and
- Planning for expansion by incrementally including additional datasets over time.

***Question #4: What training, tools, and resources would facilitate actionable data translation?***

There was spirited discussion among the panel members regarding what might be possible in this area. The panel offered recommendations that are likely to be the most feasible and valuable going forward:

- Add more communications capacity to the WISQARS team to consider enhancements and strategies to raise awareness of WISQARS;
- Create system-wide capacity to provide better guidance on using WISQARS and to identify ways to better integrate this guidance into the user experience, including pop-up windows and other “bells and whistles” that can be incorporated; and
- Provide more examples within WISQARS of how the data can be used so that users can see its potential value.

## **Discussion**

**Dr. Greenspan** thanked Dr. Allegrante, Ms. Thigpen, and the expert panel for their hard work. She opened the floor for discussion, questions, and comments.

**Dr. Testa** applauded their effort and the impressive results.

**Dr. Mickalide** wondered whether it would be possible to collect data from individuals who use WISQARS. She also asked about governmental constraints on including such an option on the site and whether other CDC datasets collect this type of information.

**Dr. Greenspan** answered that there are restrictions if the agenda goes to the public. Any systematic questioning of more than nine members of the public must be submitted to the OMB approval process.

**Ms. Cucchi** added that there are internal ways to collect information on CDC websites. Exploring these options to learn about the user experience is at the top of the list.

**Dr. Allegrante** said that the expert panel was specifically concerned that a user should be queried about the process and experience of using WISQARS before logging out. Collecting process-level data about the user experience will be an important element of the next iteration of WISQARS.

**Dr. Hamby** congratulated NCIPC staff and the expert panel on a well-done review. WISQARS is a terrific resource, and there are ways to raise awareness of it and other resources that NCIPC and CDC have to offer. Some journal websites show their most downloaded or most cited items. Sites such as Amazon have features to indicate what “other people search for.” These, or similar, features can show what is available on WISQARS.

**Ms. Castillo** said that NIOSH has conducted many program reviews, but has not conducted one on its surveillance program. She applauded the WISQARS portfolio review and its methods, which may have applications for her group. Some metrics have been conducted on WISQARS; for example, the report indicates that there are 2150 visits and 1750 data requests per day for WISQARS. Those numbers are remarkable. The recommendations for moving WISQARS forward are important, but the system that has been built deserves applause, as it clearly is being used.

**Dr. Baldwin** wondered whether a “best in class” was identified among the 17 other web-based query systems identified in the review. WISQARS could learn from the systems that are most optimized. He also wondered about having the visualization work created by others so that WISQARS staff can focus on the data backbone of the system. WISQARS cannot update its design schemes as readily as other platforms can, so it may have utility to divide the work.

**Dr. Hargarten** recalled a conversation that he had with an individual from the Bill & Melinda Gates Foundation, which places priority on data visualization. If the data visualization can be improved upon, then the investment in WISQARS will be worthwhile. He asked whether the stakeholders or expert panel in the portfolio review included representation from the media. The number of queries regarding firearms and

suicide may imply that NGOs are seeking WISQARS data in response to shootings or suicides. He was struck by the fact that relatively few academics use the WISQARS data. If the resource does not have the depth of data that academics seek, then the target audiences may be policymakers and their staff, the media, and NGOs.

**Ms. Thigpen** said that one reporter was interviewed as part of the review process. The Google data indicated that the use of WISQARS data has been reactionary, but there is no way to be certain. There are differences between the Google data and the data from the stakeholder interviews. The media is reactionary, and organizations often take advantage of what is happening in the world to build their cases, relevance, and need for support. The process of informing policymakers is also often reactionary, and many people use WISQARS data in that capacity. Learning more about the data usage will be important.

**Dr. Houry** added that NCIPC partners mention that WISQARS is their go-to data source. They use it in response to media inquiries and for different policies.

**Dr. Hargarten** asked about technical challenges related to data linkage. For instance, is it possible to link a user to another source if his or her question cannot be answered by WISQARS?

**Dionne Williams** said that WISQARS includes fatal and nonfatal injury data as well as NVDRS data, and she was not aware of other data sources asking to be mapped to WISQARS. The nonfatal injury data comes from the National Electronic Injury Surveillance System (NEISS).

**Dr. Hargarten** observed that NEISS now includes the location where an injury occurs, such as on a street or in the home. He asked whether WISQARS can query NEISS for that information.

**Dr. Greenspan** said that the information from NEISS is the basis of the WISQARS query system, but to keep it simple, not every field in NEISS is in WISQARS. There may be opportunities to add additional fields or to provide that information. Linkages might be possible for more in-depth analysis with the NEISS data.

**Mr. Kevin Webb**, Lead, WISQARS Programming Team, said that WISQARS has the capability to link to other data. The data for linkage should be determined.

**Dr. Mick Ballesteros** asked for detail regarding what is meant by “linking.” For instance, are they recommending linking emergency room data to fatality data?

**Dr. Hargarten** said that the question of where an event occurred is becoming more relevant. Accessing that data on a state level, or on even more granular city and county levels, could be important for linking the outcomes of a fatal or nonfatal injuries to other issues.

**Dr. Ballesteros** said that depending on the source data, there are opportunities to include more data in WISQARS. There are challenges associated with connecting WISQARS to other databases.

**Mr. Webb** agreed and commented on issues associated with the completeness of many other injury datasets that are available. WISQARS has the technical capabilities to link to databases, and a “tech refresh” was just conducted to put WISQARS on a new hosting platform that allows for more capability and functionality that will address some of the expert panel recommendations. The next step will be to determine which data should be linked, and how it should be linked.

**Dr. Hargarten** stressed that WISQARS is a wonderful treasure, and the portfolio analysis and report are strong. He asked about integrating codes into WISQARS.

**Dr. Baldwin** said that data linkage regarding motor vehicle-related issues is a priority. NCIPC is vetting a strategic direction in this area, and the linkage is related to activities within codes. They are working with NHTSA on best practices manuals for states to conduct data linkage. NCIPC is interested in ensuring that data linkage can still occur as the use of codes wanes. The success or failure of codes hinged on the funding that was provided and the technical systems and people on the ground who were doing the work; a different model may need to be implemented for a codes-like system. The concept of data linkage has been vetted at the level of the CDC Director, and it will be a priority within motor vehicles.

**Dionne Williams** added that WISQARS is “public-facing” and entertains questions and concerns from users on a daily basis.

**Dr. Greenspan** called for a vote to approve the recommendations from the expert panel regarding the WISQARS Portfolio Review.

**Vote: WISQARS Portfolio Review Recommendations**

**Dr. Hargarten** moved to approve the recommendations from the expert panel. **Dr. Forjouh** seconded the motion. The motion carried unanimously with no abstentions.

**BSC – Initiated Discussion**

For the BSC-initiated discussion period, **Dr. Greenspan** encouraged the BSC to reflect on improving communication, a process for introducing BSC-initiated discussion, and expectations and a timeline for response from NCIPC regarding discussion points.

**Dr. Mickalide** said that as a BSC member, she would appreciate a “monthly missive” or bulletin from NCIPC. One person at NCIPC could be charged with sending this bulletin, which she did not intend to be burdensome for the individual. She was not aware, for example, of last week’s *MMWR* from the center and of other NCIPC-related issues. She acknowledged that everyone receives volumes of emails, but if the communication were customized for the BSC, she would read it.

**Dr. Greenspan** said that the suggestion was a good one and could dovetail with the SharePoint resource.

**Dr. Mickalide** noted that she appreciates receiving reports and information from Dr. Baldwin and his division.

**Dr. Greenspan** agreed and commented on the difficulty of the BSC meeting only every six months. More timely information in smaller pieces would be more useful.

**Dr. Mickalide** said that SharePoint could also include information about the interactions between NCIPC leaders and members of Congress and their staff members.

**Dr. Allegrante** supported the idea and suggested that the BSC meetings could fully utilize the expertise of its members if an agenda-setting workgroup were formed. The group could meet on a quarterly basis to preview the upcoming BSC meeting and stimulate ideas for discussion. More regular communication might help generate ideas for agenda items.

**Dr. Greenspan** asked whether such a group could be created without making changes to the charter of the BSC. In the past, the chair of the BSC has helped set the meeting agenda.

**Dr. Cattledge** indicated that a small group could be created.

**Dr. Mickalide** asked about access to the minutes from the IVPN.

**Mark Biagiioni** answered that meeting notes are traditionally sent after the monthly IVPN calls. The notes can be sent on a more regular basis, and BSC members can be added to the distribution list. This approach would help them receive policy updates.

**Dr. Hargarten** was willing to be added to the IVPN list, but he also supported the suggestion to generate an update email specifically for the BSC.

**Dr. Mickalide** said that the updates will help keep BSC informed. She appreciated Dr. Houry's "Town Hall" call to the entire field. She hoped that more of those calls, with different representatives from NCIPC, could connect the community at large with federal agencies.

**Dr. Houry** thanked the Office of Policy and Partnerships (OPP) team that created the call format.

**Dr. Greenspan** said that the center has provided updates in a number of different ways. Recently, to depart from the "report-out" approach from division directors, the divisions have compiled updates of their recent activities to provide to the BSC. She asked about the usefulness of those updates, especially if they move toward a monthly update to the BSC.

**Dr. Mickalide** answered that it would be useful to receive two or three bullets from the center director and from each of the division directors regarding current priorities. BSC members can always ask for more information, but the bullets would provide a good snapshot without being cumbersome for staff.

**Dr. Houry** felt like it would not be cumbersome to create those bullet points. They are similar to an "elevator speech" with two or three topics and highlights to present. The center can repurpose the Friday updates.

**Dr. Hargarten** asked if it would be useful to Dr. Houry and the center to repurpose the updates.

**Dr. Houry** said that the communication depends on the audience. The BSC will receive more, and more targeted, information than other partners. NCIPC shares a great deal of information with partners and stakeholders through the IVPN.

**Dr. Hamby** encouraged NCIPC to think about the role that the BSC should have, as it is not always clear what the center hopes to get from the BSC meetings. Updates are useful, but they might consider quarterly updates at first. The experience of working on the research agenda was positive. The task was clearly defined and forward-looking, with clear products and roles for the BSC members. The BSC can provide an external perspective, giving a sense of how the community might react to issues and initiatives. She was surprised by the last cycle of calls for research and investigator-initiated grants, as some of them represented a change in direction, and the issues, integrations, and focus areas had not been discussed in a BSC meeting. She commended Dr. Houry for her work and approved of the changes that have been made in the last 10 months. She supported the shift from “reporting out” from directors, as the BSC can read those reports.

**Dr. Houry** appreciated the feedback. She agreed that there are more opportunities to engage the BSC, either as individuals on different workgroups or on different forthcoming items, such as a unit’s strategic plan or changes to the center website. The timing of FOAs is set at once per year, and she had been surprised at the length of the process. The center can look at the next initiatives in the next years and determine which are more appropriate for engaging the BSC, and at what stages. The portfolio review of WISQARS and the research agenda are good examples of involving the BSC.

**Dr. Hamby** said that regarding the community-level FOA, she heard feedback asking why the FOA was written in a manner that seemed to focus on the academic community. It ruled out hierarchical linear modeling analysis, which would be an excellent approach for considering community-level factors because it takes individual-level factors into account. The field interpreted the FOA as having a ban on individual-level analyses. An issue such as this one could have been vetted with an external group such as the BSC before it was rolled out.

**Dr. Houry** said that they could take such an approach under consideration. Elements of the prior research agenda were broad, and she hoped that the new agenda would drive future research directions. She complimented the NCIPC leadership and center staff who have all risen to the occasion over the last 10 months.

**Dr. Greenspan** said that NCIPC is on a tight timeline to share the new research priorities on the website so that it will be up before the next cycle of FOAs. The community can see and understand the center’s priorities and how they will align with the new FOAs.

**Dr. Greenspan** asked for comments regarding a process for BSC-generated ideas.

**Dr. Hargarten** asked about NCIPC’s strategy regarding BSC-generated ideas. The research announcements could be framed to encourage or require that the researcher

include a junior faculty member to mentor. This approach will not affect financial aspects of the grant, but will pull new researchers and post-docs into the work.

**Dr. Greenspan** liked the idea, and it has been discussed internally. There have also been discussions, but no decisions, regarding the possibility of reinstituting dissertation awards or first awards, which the center has awarded in past years. Their budget is limited, and they must consider where best to place resources. In her opinion, small sums of money can reap benefits not only for the award, but also for propelling someone's career.

**Dr. Hargarten** described the R25 opportunity from NIH. His group recruited approximately 15 assistant professor-level post docs to engage them in training regarding violence research. The program will be fully evaluated. The initial qualitative analysis suggests that the training was well-received, and the participants felt that it was beneficial for launching their careers.

**Dr. Greenspan** said that NCIPC has conversations with its federal partners. She has a trip planned to NIH and will meet with the new Injury Branch at the National Institute of Child Health and Human Development (NICHD). They will explore ways to co-fund initiatives. CDC has a much smaller budget than NIH, so leveraging funding is important.

**Dr. Houry** said that she could collect bullets from the division directors, but they work very closely and she knows their priorities. She can send an email summary or SharePoint resource to the BSC either monthly or quarterly. BSC members are always welcome to email her for more information or resources. Although NCIPC's budget is growing, it is still limited. Several of Dr. Hargarten's ideas do not cost additional money and can be initiated within the center in partnership with the BSC. A small workgroup could consider these issues. NCIPC is launching several initiatives now, including the research agenda, state programs for PDO, guidelines for PDO, and revising the website. She suggested discussing how to operationalize a group in the future, as the concept of growing and supporting the field is larger than changing an FOA.

**Dr. Sleet** said that the ICRC FOA includes language to encourage the centers to fund and send summer interns to CDC. This approach has been successful, especially at the University of Michigan. There is also an Injury Prevention Fellowship at the Society for Public Health Education (SOPHE).

**Dr. Greenspan** added that NCIPC has a number of internship programs. A number of Epidemic Intelligence Service (EIS) officers who have come to NCIPC have remained in the injury field. The center should have a concerted effort and thought process about better preparing the next generation of injury researchers.

**Dr. Allegранте** asked whether the IPA program is still functional.

**Dr. Greenspan** replied that the center still has IPAs. Dr. Cattledge is creating an internship fellowship program that coalesces the center's different types of interns and provides common training.

**Dr. Cattledge** said that the program will assemble all of the different interns within CDC or who have been funded by other federal agencies. When they arrive at NCIPC, they

will feel like they are a part of the center and will promote the injury and violence prevention agenda. Some of the interns are being introduced to public health, and the program will help them see how they can have a career in the field on injury and violence prevention. The program will include career development training and show them the research across the center's divisions, beyond their team.

**Dr. Allegante** thought that the program was a great idea, and he volunteered to assist either via webinar or in person. He pointed out that he and other BSC members could contribute seminars on how to write for journals and other relevant topics.

**Dr. Greenspan** suggested that the BSC have a specific conversation about training and growing the field and consider internships, mentoring, and funding.

**Dr. Mickalide** asked about plans to have a report that will articulate whether the research priorities have yielded any findings.

**Dr. Houry** said that they plan a report. There had not been a great deal of tracking or evaluation of the prior research agenda. They hope to include process measures and successes from funded grants. The report will probably be prepared in six to seven years, as much of the funding will end after five years. The new research agenda will help the center track what it is doing with more focus.

**Dr. Greenspan** said that the center would hire an evaluation scientist in the Office of the ADS. One of the person's main functions will be to develop metrics and a system for tracking the center's research priorities. She hoped to include recommendations from portfolio reviews to understand where the center is and where it is going as well as to pull the intramural and extramural research together in order to show how the center's science portfolio is moving forward.

**Dr. Greenspan** asked for the BSC's thoughts on their initiated discussions, including how to generate ideas and the preparation expected from NCIPC staff. For instance, ideas for BSC discussion could be forwarded to her, but there are process questions that need to be answered to ensure that the discussions are productive.

**Ms. Peeples** raised Dr. Allegante's idea of creating a small group reviewing the BSC meeting agenda in advance. This approach would give NCIPC time to operationalize the ideas.

**Dr. Hargarten** noted that the quarterly communication from the center will generate questions and ideas from the BSC.

**Dr. Hamby** suggested that the work on NCIPC's research priorities and training could be more aspirational and incorporate higher-level principles. CDC's Winnable Battles have resonated with people in the field, who feel that they can be part of something bigger that is going to make a difference. The BSC exists to serve NCIPC and to help with what they are wrestling with. Prior BSC meetings have consisted of large overviews and a relatively short amount of time to talk about them. It has been difficult to discern which issues are more of a struggle and need more feedback than others. She encouraged NCIPC to ask for help from the BSC.

**Dr. Mickalide** added that the idea of BSC discussion was generated in previous meetings when there was less opportunity for BSC members to have input into constructs and projects that were in formative stages. She agreed with Dr. Hargarten that if the BSC is more aware of what is happening at NCIPC, they can bring ideas forward for discussion.

### **Farewell to Retiring Members**

**Dr. Greenspan** recognized **Dr. Johnson** and **Dr. Harris**, who were retiring from the BSC. She thanked them for their time and contributions to the BSC.

### **SharePoint Training**

**Darryl Owens, SharePoint Administrator**  
**Division of Analysis, Research, and Practice Integration**  
**National Center for Injury Prevention and Control**  
**Centers for Disease Control and Prevention**

**Dr. Greenspan** introduced Mr. Owens and noted that SharePoint is a way for the BSC and NCIPC to communicate bi-directionally and in a timely manner. NCIPC can post updates and materials to this secured website that is only for the BSC and some internal NCIPC staff members. She encouraged BSC members to try the site.

**Mr. Darryl Owens** described how to access and use SharePoint, indicating that BSC members should have received an email with instructions to create their account. The system generated a username for each BSC member, which will be similar to his or her email address. It also created an initial temporary password. BSC members should click on the link in the email to activate their accounts.

Users of SharePoint must agree to the Conditions of Use, which remind them that they are connected to a federal government network. Accepting the conditions also indicates that the user is a member of the BSC. The next step is to register the password and to log in again with the username and temporary password. Mr. Owens explained the process for verifying the account and security questions, as well as updating the password, which the CDC system requires to be complex. When the account is created and validated, BSC members should inform Mrs. Tonia Lindley, who will add them to the SharePoint system.

When logging into the system, users must indicate whether they are on a public or shared computer, or a private computer. Mr. Owens cautioned that the time-out period is short for a public computer. Users must also indicate when logging in if they are public partners or CDC staff.

SharePoint is a collaborative tool that enables teams to work together. The program enhances document management, improves reporting, automates business processes, manages calendars, and creates workflows. SharePoint includes libraries of similar files that users can manage or manipulate. It also includes lists of items with similar fields, such as contacts, tasks, and calendars. Users of SharePoint should know how to use Microsoft Windows and Microsoft Office, and know how to browse the Web. Windows commands work the same way in SharePoint.

Mr. Owens then presented the SharePoint site and demonstrated its utility to create and edit documents, tasks, and calendar events. Depending upon the view selected, the SharePoint calendar may not necessarily have a button to add an event; rather, a user can mouse over a given date to add an event. Calendars in SharePoint can also have alerts, which users can customize. The site can track workflow on a document as it is edited and through the review and approval process. It will not permit two people to edit a document at the same time, so documents should be checked in and out.

### **Discussion**

**Dr. Mickalide** asked whether all of the documents shown are accessible to BSC members. **Mr. Owens** replied that they are. She also asked if they are part of the Friday report.

**Dr. Greenspan** said that on every Friday, Dr. Houry or Dr. Peebles distributes an update of the week's activities. Those reports could be shared, but the BSC may not want all of the information. They will decide how to compile information for SharePoint on a monthly or quarterly basis.

**Dr. Allegrante** asked whether the SharePoint calendar will populate a user's Outlook or Google calendar.

**Mr. Owens** said that SharePoint can put an overlay on an Outlook calendar. Authentication will be required to access SharePoint events. An Outlook calendar cannot overlay on a SharePoint calendar. The process will also work with Google calendars, with SharePoint authentication required.

A telephone participant asked whether his SharePoint account through another CDC activity will work for the BSC SharePoint site. Mr. Owens said that a new account will not need to be created. The existing account can be added to the BSC SharePoint, and the user should provide the username to Mrs. Lindley. The SharePoint account will remain when BSC members leave the BSC.

**Dr. Allegrante** indicated that he received the invitation to SharePoint to a current account, but his new account is slightly different.

**Mr. Owens** replied that Mrs. Lindley will create a new invitation with the new email information. If BSC members have questions, they should email them to Mrs. Tonia Lindley.

**Public Comment Period**

**Dr. Greenspan** opened the floor for public comment at 4:00 pm. No public comments were offered.

**Announcements from Board Members and Ex-Officios'**

**Dr. Mickalide** announced that the 2016 Emergency Medical Services for Children (EMSC) program meeting will be held June 22-24, 2015 with a pre-conference on the afternoon of June 21, 2015 in Bethesda, Maryland. The HRSA-funded grantees from across the country who focus on EMSC in infrastructure and research will be in attendance and will present their work.

**Conclusion and Adjourn**

**Dr. Greenspan** commented on the recent hack of the federal Office of Personnel Management (OPM) site, which may have resulted in the compromise of personal information. She indicated that the issue would be addressed at the beginning of the next day's proceedings. She reminded BSC members to provide their conflict of interest forms as soon as possible. She thanked the BSC for their discussion and participation, and expressed her hope that this meeting would serve as a model for future interactive BSC meetings. She appreciated the feedback on the research agenda and the WISQARS Portfolio Review. Telephone participants were reminded to send an email to Mrs. Lindley indicating their participation in the meeting.

The 16<sup>th</sup> meeting of the BSC adjourned at 4:30 pm.

**Certification**

I hereby certify that to the best of my knowledge, the foregoing minutes of the July 15, 2015 NCIPC BSC meeting are accurate and complete:

09/10/2015



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Date

Arlene Greenspan, DrPH, MPH, PT  
Chair, NCIPC BSC

**Attachment A: Meeting Attendance****BSC Members**

John P. Allegranter, PhD  
Deputy Provost  
Teachers College  
Columbia University

Samuel Forjouh, MD, MPH, DrPH, FGCP  
Department of Family and Community Medicine  
Texas A&M Health Science Center College of Medicine

Sherry Lynne Hamby, PhD  
Department of Psychology  
Sewanee, The University of the South

Stephen Hargarten, MD, PhD  
Professor and Chair  
Department of Emergency Medicine  
Medical College of Wisconsin

Angela D. Mickalide, PhD, MCHES  
Executive Director  
Emergency Medical Services for Children's National Resource Center  
Children's National Medical Center

Sherry D. Molock, PhD  
Associate Professor  
Department of Psychology  
The George Washington University

Christina A. Porucznik, PhD, MSPH  
Assistant Professor  
Department of Family and Preventive Medicine  
University of Utah

Maria Testa, PhD  
Senior Research Scientist  
Research Institute on Addictions  
University at Buffalo

Shelly D. Timmons, MD, PhD, FACS  
Director of Neurotrauma  
Department of Neurosurgery  
Geisinger Medical Center

**Federal Liaisons**

Dawn Castillo, MPH  
Director  
Division of Safety Research  
National Institute for Occupational Safety and Health

Lisa J. Colpe, Ph.D., M.P.H.  
Chief, Office of Clinical and Population Epidemiology Research  
National Institute of Mental Health

Elizabeth A. Edgerton, MD, MPH  
Branch Chief  
EMSC and Injury Prevention  
Maternal and Child Health Bureau  
Health Resources and Services Administration

Thomas E. Feucht, PhD  
Executive Senior Science Advisor  
National Institute of Justice

Jane L. Pearson, PhD  
Associate Director for Preventive Interventions  
Division of Services and Intervention Research  
National Institute of Mental Health

Farris K. Tuma, Sc.D  
Chief, Traumatic Distress Disorders Research Program  
And Treatment Development  
National Institute of Mental Health

Lyndon J. Joseph, Ph.D.  
Health Scientist Administrator  
Division of Geriatrics and Clinical Gerontology

**CDC Staff Present**

Adeyelu Asekun, M.S., M.B.A.  
Grant Baldwin, Ph.D., M.P.H.  
Sara Bacon, Ph.D.  
Jeneita Bell, M.D., M.P.H.  
Mark Biagiioni, M.P.A.  
Gwendolyn Cattledge, Ph.D., M.S.E.H.  
Kristen Cincotta, Ph.D.  
Paige Cucchi, M.P.H.  
Melissa Cyril  
Linda Dahlberg, Ph.D.  
Julie Edelson

Hilary Eiring  
Corrine Ferdon, Ph.D  
Curtis Florence, Ph.D,  
Derek Ford, Ph.D.  
Beverly Fortson, Ph.D.  
Arlene Greenspan, Dr.P.H., M.P.H.  
Juliet Haarbauer Krupa, Ph.D.  
Tamara Haegerich, Ph.D.  
Jeffrey Herbst, B.A., Ph.D.  
Susan Hillis, M.S.N., Ph.D  
Dan Holcomb, B.S.  
Phyllis Holditch Nilon, Ph.D.  
Debra Houry, M.D., M.P.H  
M. Chris Langub, Ph.D.  
Karen Ledford, B.S.  
Tonia Lindley  
Michael Lionbarger, M.P.H.  
Melissa Merrick, Ph.D.  
Patricia Mitchell, B.S., M.P.H.  
Gaya Myers, B.A., M.P.A.  
Sue Neurath, Ph.D.  
Darryl Owens, B.S.  
Nimeshkumar Patel, M.S.  
Amy Peeples, M.P.A.  
Katie Ports  
Emily Robinson  
Erin Sauber-Schatz, M.P.H., Ph.D.  
Puja Seth, M.A., Ph.D.  
Tom Simon, Ph.D.  
David Sleet, Ph.D.  
L. Shakiyla Smith, M.P.H.  
Paul Smutz, Ph.D.  
Jane Suen, Dr.Ph., M.S.  
Sally Thigpen, M.P.A.  
Kevin Webb  
Mildred Williams-Johnson, Ph.D., D.A.B.T.  
Joann Yoon,

**Other Attendees**

Stephanie Wallace, Cambridge Communications  
Jim Evans, Sound on Site

### Attachment B: Acronyms

<b>Acronym</b>	<b>Expansion</b>
ACA	(Patient Protection and) Affordable Care Act
ACS	American College of Surgeons
ADS	Associate Director for Science
APHA	American Public Health Association
ASPPH	Association of Schools and Programs of Public Health
BAC	Blood Alcohol Concentration
BRFSS	Behavioral Risk Factor Surveillance System
BSC	Board of Scientific Counselors
CDC	Centers for Disease Control and Prevention
CGH	Center for Global Health
CHC	Community Health Center
CHNA	Community Health Needs Assessment
COT	Committee on Trauma
DARPI	Division of Analysis, Research, and Practice Integration
DEA	(United States) Drug Enforcement Administration
DUIP	Division of Unintentional Injury Prevention
DVP	Division of Violence Prevention
EHR	Electronic Health Record
EIS	Epidemic Intelligence Service
EMS	Emergency Medical Services
EMSC	Emergency Medical Services for Children
ER	Emergency Room
ERPO	Extramural Research and Programs Office
FACA	Federal Advisory Committee Act
FDA	(United States) Food and Drug Administration
FOA	Funding Opportunity Announcement
FY	Fiscal Year
HHS	(United States Department of) Health and Human Services
HRSA	Health Resources and Services Administration
ICEHS	Injury Control and Emergency Health Services
ICRC	Injury Control Research Center
IIHS	Insurance Institute for Highway Safety
IOM	Institute of Medicine
IPV	Intimate Partner Violence
IVPN	Injury and Violence Prevention Network
JAMA	Journal of the American Medical Association
LGBT	Lesbian, Gay, Bisexual, Transgender
MMWR	<i>Morbidity and Mortality Weekly Report</i>
MV PICCS	Motor Vehicle Prioritizing Interventions and Cost Calculator for States
NCBDDD	National Center on Birth Defects and Developmental Disabilities
NCIPC	National Center for Injury Prevention and Control
NEISS	National Electronic Injury Surveillance System
NFL	National Football League
NHTSA	National Highway Traffic Safety Administration

<b>Acronym</b>	<b>Expansion</b>
NICHD	(Eunice Kennedy Shriver) National Institute of Child Health and Human Development
NIH	National Institutes of Health
NIJ	National Institute of Justice
NINDS	National Institute of Neurological Disorders and Stroke
NIOSH	National Institute for Occupational Safety and Health
NSC	National Safety Council
NVDRS	National Violent Death Reporting System
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OPP	Office of Policy and Partnerships
PDO	Prescription Drug Overdose
PEPFAR	(United States) President's Emergency Plan for AIDS Relief
RFP	Request for Proposal
RPE	Rape Prevention and Education
SAMHSA	(United States) Substance Abuse and Mental Health Services Administration
SAVIR	Society for the Advancement of Violence and Injury Research
SBIR	Small Business Innovation Research
SME	Subject Matter Expert
SOPHE	Society for Public Health Education
STEADI	Stopping Elderly Accidents, Deaths and Injuries
TBI	Traumatic Brain Injury
VACS	Violence Against Children Surveys
WISQARS	Web-based Injury Statistics Query and Reporting System
YPLL	Years of Potential Life Lost