Mental Health Services
Oversight & Accountability Commission

WELLNESS • RECOVERY • RESILIENCE

Research and Evaluation Committee Meeting

September 1, 2021
9:00 am to 12:00 pm

Chair Itai Danovitch | Vice Chair Ken Berrick

Research and Evaluation Committee Meeting Agenda

Wednesday, September 1, 2021
9:00 AM – 12:00 PM
MHSOAC: Zoom Teleconference
Note: The meeting audio will be recorded.
Link: https://zoom.us/j/91439904122?pwd=UnM5cFl2cm9za0FuWGhmRWJHb3Q1Zz09
Call-in Number: 669-900-6833, 408-638-0968
Meeting ID: 914 3990 4122 **Password:** 876259

Meeting Purpose and Goals:

- Convene the Committee to advise the MHSOAC's Research and Evaluation Division on a strategy to evaluate the impact of MHSA programs and services on children and youth.
    - Review and provide guidance on a proposed plan for evaluating Triage Crisis Services Program outcomes (summative evaluation).

TIME	TOPIC	Agenda Item
9:00 AM	**Welcome** *Commissioners Dr. Itai Danovitch, Chair & Ken Berrick, Vice Chair* Welcome, opening remarks and review of the agenda.	
9:10 AM	**Action: Approval of Meeting Minutes** *Commissioner Dr. Itai Danovitch, Chair* The Research and Evaluation Committee will consider approval of the minutes from the June 17, 2021 meeting teleconference. • **Public comment** • **Vote**	**1**
9:20 AM	**Information: Triage Crisis Services - An Overview of the Triage Grant Program and Preliminary Findings from the Evaluation of Triage Program Implementation** ***Presenters:*** *Tom Orrock*, MHSOAC Chief of Operations and Grants Division *Kai LeMasson*, PhD, MHSOAC Senior Researcher Commission staff will provide background and description of the SB 82/833 Triage Grant Program and discuss the preliminary findings from the statewide formative and process evaluations.	**2**

Public Notice: All meeting times are approximate and subject to change. Agenda items are subject to action by the MHSOAC and may be taken out of order to accommodate speakers and to maintain a quorum, unless noted as time specific. Pursuant to the Americans with Disabilities Act, individuals who, because of a disability, need special assistance to participate in a Mental Health Services Oversight and Accountability Commission or Committee Meeting may request assistance by emailing the MHSOAC at mhsoac@mhsoac.ca.gov. Requests should be made one week in advance whenever possible.

9:45 AM	**Information: An Approach to Statewide Evaluation with an Application to Triage Programs** ***Presenters:*** *Mike Howell, UC Research and Data Integration Manager* *Denis Hulett, MS, MHSOAC Researcher* *Heike Thiel de Bocanegra, PhD,* MPH, MHSOAC Researcher Manager Commission staff will describe the data infrastructure the Commission has developed through partnerships with state agencies to link statewide data. A plan for evaluating Triage Program outcomes (summative evaluation) will be presented and can serve as an overarching strategy for evaluating children & youth programs.	**3**
10:30 AM	**Break**	
10:40 AM	**Action: Triage Summative Evaluation Plan** Through facilitated discussion, committee members and stakeholders will provide feedback on the summative evaluation plan presented in agenda item #3. The Committee will receive public comment and then vote on whether to endorse the proposed summative evaluation plan, perhaps with recommendations for improvements. <u>Discussion Questions:</u> 1. Regarding the Commission's data infrastructure, are there major outcome domains or variables missing? What are your recommendations? 2. What are your thoughts on the Triage Summative Evaluation plan? • Are we asking important evaluation questions? What suggestions do you have for improving the framing of those questions, given our charge to conduct a statewide evaluation of highly heterogeneous grant programs? • Given the program and data constraints, how would you suggest we refine our methods to answer these important evaluation questions? • What suggestions do you have for improving the evaluation of the next round of Triage grants? 3. How can we improve this evaluation's attention to equity issues? • **Public comment** • **Vote**	**4**
11:45 AM	**Wrap-Up** *Commissioner Dr. Itai Danovitch, Chair*	
12:00 PM	**Adjourn**	

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AGENDA ITEM 1

Action

September 1, 2021 Research and Evaluation Committee Meeting

Approval of Meeting Minutes

Summary: The Commission's Research and Evaluation Committee will review the minutes from the June 17, 2021 Committee teleconference meeting. Any edits to the minutes will be made and the minutes will be amended to reflect the changes and posted to the Commission Web site after the meeting.

Presenter: None

Enclosures (1): June 17, 2021 Meeting Minutes.

Proposed Motion: The Committee approves the June 17, 2021 meeting minutes.

Research and Evaluation Committee Teleconference Meeting Summary
Date: Thursday, June 17, 2021 | Time: 1:00 p.m. – 4:00 p.m.

MHSOAC
1325 J Street, Suite 1700
Sacramento, CA 95814

Committee Members:	Staff:	Other Attendees:
Itai Danovitch, Chair Ken Berrick, Vice Chair Sergio Aguilar-Gaxiola Robert Brook Victor Carrion Eleanor Castillo Sumi Jonathan Freedman Sharon Ishikawa Gustavo Loera Belinda Lyons-Newman Mari Radzik Ruth Shim	Toby Ewing Maureen Reilly Dawnte Early Kai LeMasson Brian Sala Cheryl Ward Sheron Wright	Steve McNally

Committee Members absent: Rikke Addis, Bridgette Lery, April Ludwig, Laysha Ostrow, Lonnie Snowden, and Katherine Watkins

Welcome, Introductions, and Opening Remarks

Commissioner Itai Danovitch, Committee Chair, called the meeting to order at approximately 1:00 p.m. and welcomed everyone. He reviewed the meeting protocols and meeting agenda.

Kai LeMasson, Ph.D., Senior Researcher, called the roll and confirmed the presence of a quorum.

Agenda Item 1: Action – Approval of Meeting Minutes

Chair Danovitch asked for a motion to approve the meeting minutes for the February 24, 2021, Research and Evaluation Committee teleconference meeting.

A Committee Member made a motion to approve the minutes as presented. The motion was seconded by another Committee Member.

Vote recorded with participating members as follows:

- Approve: Committee Members Aguilar-Gaxiola, Brook, Carrion, Castillo Sumi, Freedman, Ishikawa, Loera, Lyons-Newman, Radzik, and Shim, Vice Chair Berrick, and Chair Danovitch.

Agenda Item 2: Information: Summary of the Committee's Work

Chair Danovitch summarized the Committee's work to date.

Vice Chair Berrick stated the Committee input over the last three Committee meetings showed that Commission strategies for evaluation and research were either not being communicated clearly or were not specific to population-level impacts. This input has led the Commission to review how the Commission looks at all research efforts.

Vice Chair Berrick stated the Commission will work with this Committee on an evaluation framework for Mental Health Services Act (MHSA) programs to improve the quality of evaluation and encourage consistency in data collection across counties and research efforts to create a clear research agenda to evaluate the impact of the MHSA at population levels and for specific types of projects.

Vice Chair Berrick stated helpful public comment included the need to define the term "intervention" and to be careful about terminology such as using the word "expert" over the word "professional" and defining the word in ways that are inclusive on what expert means, particularly for individuals of color and the LGBTQ population.

Dawnte Early, Ph.D., Chief, Research and Evaluation, reviewed the three priority options for the Committee for 2021, based on Committee Member and stakeholder input over the past three Committee meetings:

- An evaluation framework for MHSA programs.
- A research agenda to evaluate the impact of the MHSA.
- A strategy for evaluating population-level mental health status.

Dr. Early stated, of these three options, the Committee endorsed the development of an evaluation framework for MHSA programs because it closely aligns with the Commission's mandate and would be useful for various evaluations across the state. She stated Committee Members suggested that the framework be flexible enough to capture the uniqueness of different communities and what matters most to them. Based on further discussion at the last meeting, it was determined to prioritize the development of a Child/Youth/School Mental Health Evaluation Framework.

Agenda Item 3: Discussion to Guide the Committee's Proposed Evaluation Framework

Chair Danovitch stated the Committee will discuss and provide feedback on a general evaluation framework developed by Commission staff that could be applied across Commission grants and initiatives for children, youth, and school mental health.

Kai LeMasson, Ph.D., Senior Researcher, provided an overview, with a slide presentation, of the development, purpose, and objectives of the proposed Children/Youth/School Mental Health Evaluation Framework. She stated the tool is a blended framework to make it accessible to stakeholders and to reflect the values of the MHSA. It is designed to be flexible

and broad in scope so that elements of the tool can be modified and adapted for different purposes.

Questions to guide the discussion included:

1. How can the objectives and structure of the evaluation framework be improved and be applicable to a range of programs and services?

Committee Member Brook asked how this framework can answer important questions within one year. There are no specifics after one year about the questions to be answered or whether the MHSA is doing what it is supposed to do. He suggested that the framework focus on one thing.

Chair Danovitch agreed with the need to ensure that achievable evaluation targets are set.

Committee Member Brook asked for a timeline for the specific question that the Committee will answer over the next year relating to whether the money spent on the MHSA did what it was supposed to do.

Chair Danovitch agreed that this is important. He stated the Committee will lean on Committee Member Brook to help keep it at the forefront of the Committee's work. He stated the next agenda item will provide the context through which Committee Member Brook's question can be answered.

Committee Member Aguilar-Gaxiola agreed with Committee Member Brook. He stated there are good things in the framework, but it lacks focus. In the context of the impacts of the COVID-19 pandemic on children and youth, the focus on structural inequities, and the desire that health equity be prominent, it is difficult to accomplish that. He stated the National Academy of Science and Engineering put out a report in 2019 about vibrant kids and mental health of children that is worth looking into.

Committee Member Freedman stated the MHSA, more than any other law in California, is at the highest and broadest possible perspective and tracks where services are invested. Evaluative reports and analyses about the MHSA are mostly about activities or projects but is sorely lacking in answering the question about if it has made a difference in people's lives. An important role of this Committee is to begin to answer that question. It may not be specific enough at this point, but he urged the Committee to coalesce around the concept that these questions must be answered.

Chair Danovitch asked Committee Member Freedman how he characterized that question, given that his introductory sentence was that the MHSA can be characterized in many different ways.

Committee Member Freedman stated there are different metrics about how to understand mental health burden and mental health recovery. He stated his question stems from the fact that California keeps spending more but is not reaching enough individuals. This is a huge challenge but is not a question about resources – it is a question of design, allocation, and methodology. Starting to evaluate why systems do or do not work, their effectiveness, how

deeply they reach individuals, and if individuals ever exit them, are questions that must be considered.

Chair Danovitch stated he wanted to hear more about the types of evaluations that Committee Member Freedman thinks will be helpful with that. It is important to figure out how to be granular in order to think about a plan and how to resource it.

Vice Chair Berrick stated the framework was a necessary beginning point. He stated the need to clarify how to frame questions and outcomes and what the first target area will be. Prioritizing was the first application of the framework. Once the Committee agrees with the right framework to use as a beginning point, then it can be used to answer more specific questions in each area. Now that the Governor and Secretary have outlined a year-long planning process and specific targeted areas of interventions, this framework and the priority for children for youth fit beautifully into the Committee's ability to create a research agenda that can lead what is done at both the state and county levels.

Vice Chair Berrick suggested a tiered expectation with the framework focused on children and youth as a beginning point, and then look at a series of shared outcomes that can be reported on for both the county level and aggregated at the state level with clear ideas of impacts for the next four years to coincide with the Governor's year-long planning process and four-year implementation agenda for children and youth. He stated the framework is the beginning point not the end point and was a necessary step.

Committee Member Carrion stated the framework has a good eye to programs. He agreed that program evaluation requires greater specificity but noted that it has gotten more specific during the process to date. He stated concern that the reporting on issues such as abuse and suicide may not have been optimal during the COVID-19 pandemic, which creates a risk for not having good data for this year.

Chair Danovitch asked for specific recommendations of what should be evaluated.

Committee Member Carrion asked specifically about the tool, whether the Committee Members want a guide that helps individuals assess their programs for how to develop new programs or if the tool is meant to help evaluate individual programs and how effective they are.

Chair Danovitch stated the answer relates to the question about the Committee's role in the context to the MHSA. He stated this Committee is an advisory body to the Commission not to the MHSA. This Committee is seeking to use the Commission's influence to improve the quality of evaluations of programs that are funded by the MHSA. Thus far, the ability to answer whether or not programs have been effective has been disappointing. Ways to answer this are to look at prior programs and to consider how to ensure that programs coming through have built in the evaluation mechanism to address that question in a meaningful way. The next agenda item will provide an example of a program, which is in the process of rolling out. Committee Members will discuss whether the proposed evaluation framework or another one would be useful to encourage that program to adopt it. He noted that, if there is a good strategy, it could be required for upcoming programs.

Dr. Early suggested building in, encouraging, or offering a framework to counties and providers who are providing services with the hope that it can be brought together at the state level to tell the state's story as well as individual county stories.

Committee Member Castillo Sumi stated testing the framework through the specific example later in the agenda will help to frame the conversation. The MHSSA is fairly new; the Committee is at a place where it can influence its evaluation.

Committee Member Castillo Sumi stated she agreed with better understanding the effectiveness of the Committee. The question is not whether the MHSA is making an impact but where those impacts are being made, who is being engaged, how they are being engaged, and where it is and is not successful. Providers would like to understand if there are conditions under which programs can be improved. Programs that are not successful should stop being funded.

Chair Danovitch asked where to look to answer the question of where the MHSA is making a difference.

Committee Member Castillo Sumi stated schools are focused on the Multi-Tiered System of Supports (MTSS) to better understand how that works across the state. There are enough schools that are not implementing it provide a good comparison. She stated possible questions are if MTSS produces the kind of outcomes hoped for that would be different from schools who are not implementing MTSS, and how the MHSSA program services dollars work within that context.

Committee Member Radzik agreed with the focus on looking at how to provide services in schools and how school districts are doing it. Specifically, it would be important to have qualitative dialogues with school districts who are providing services about what does and does not work. Qualitative data is powerful and grounded in theory.

Committee Member Radzik stated there are not enough providers in the state of California to provide the services that are being given to individuals who are funded through the MHSA. Specific questions are what the MHSA can do for graduates of programs and how to educate young people who are wanting to do the work but lack the educational capacity by providing scholarships. She suggested training individuals to do this kind of work so that services can be provided within school or community-based settings. More providers need to be funneled into the pipeline. Currently, community-based organizations do not pay providers enough to do the work that must be done.

Chair Danovitch asked about ways to show the influences of the MHSA or the lack thereof in terms of these programs in school and community-based settings.

Committee Member Radzik suggested asking individuals at the college- or university-level if they are aware of the MHSA and if they would be interested in going into mental health, social work, psychiatry, or nurse practitioner if they had grants to pay for their education to go into this field. She suggested using MHSA funding to provide individuals with loan write-offs for working in underserved areas to incentivize individuals who will be providing services.

Committee Member Carrion stated the need to solve health care access issues. He asked if this will take a year to verify that youths are not getting care, or if the Committee should come up with ways to increase access for mental health by using the tool of evaluation and program development to simultaneously address this access issue. Ideally, programs will be created based on this template that increase access. Then, the amount of access that was increased can be evaluated.

Committee Member Loera stated California has a career technical education organization that exists within the school structure that is led by students to generate a future workforce. They have specific standards that schools are already implementing as part of the curriculum with pathways to careers, including a pathway to mental health. Discussions are generated not so much around a framework but more on what matters most to students and teachers. He suggested that the framework be general so that the specifics can come from the voices of students and teachers. He suggested leveraging the career technical education program that is already funded through California as a way to ease in the themes around mental health.

2. Equity considerations are foundational to the MHSA. How can the framework better reflect the centrality of equity to our evaluation work?

Committee Member Brook stated the need to first focus on a population. The Committee has agreed to focus on children and youth. He stated the need to ensure that whatever is implemented in the MHSA goes where the need is and to close the differences between racial and ethnic groups. This needs to be measured.

Committee Member Brook stated the Committee also wants to know whether putting resources with a design can show that it can make a difference so it can be sustained. This would be an enormous thing to accomplish. The way to do this is to begin by taking a random set of children in the state and to understand the prevalence of the problems being dealt with and to understand how that varies by race, ethnicity, and geographic location. At the same time, teachers and students need to be questioned about programs that have been proven to be most effective in dealing with these things prior to the COVID-19 pandemic. Also at the same time, researchers who have studied some of this need to share how to do this.

Committee Member Brook stated this needs to be put together with a design on how to roll this out in a way that there are markers at the end of a year or two of whether it works. This is the way to make a difference. He suggested recruiting individuals from the community – without formal training and in a rapid way – who can help deal with these issues. This would help solve the issue about the shortage of personnel in the field. He suggested including a timeline of success. He suggested, before moving to another question, putting this discussion together with a very specific plan.

Committee Member Shim stated the proposed framework is a reasonable starting place to organize thoughts around the evaluation of MHSA-implemented programs. She stated equity must be baked into the framework by which programs are evaluated, which has been done in what has been presented. There needs to be an extensive piece around how the impacts on the social determinants of health are evaluated.

Chair Danovitch stated there are two dimensions of evaluation being discussed. One is how to influence and encourage others to do better evaluations for programs that come through the MHSA, and the other is how to conduct our own evaluation to answer impactful and influential questions. He asked what it would take for this Committee to do such an evaluation such as resources. This becomes a policy question as well.

Executive Director Ewing stated the Commission has a base budget that includes funding for research and evaluation, which mostly pays for staff, some data systems, and contract-type work, and specific funds are allocated for specific projects. There is not enough funding to fully evaluate a program on the scale of the MHSA. The Commission is not expected to do large-scale research projects. If this is necessary to settle questions that have been circulating for many years, the Commission can prepare a proposal to be presented to the Governor and the Legislature as a discrete evaluation strategy. The Commission has been making proposals for the past five years for additional resources to focus on tracking, monitoring, and reporting outcomes but has been unsuccessful beyond the increment of funding tied to a specific new program investment.

Chair Danovitch stated the Committee has covered many of the topics related to the first question and has highlighted that there is a question and an opportunity around the level of evaluation to pursue – evaluation frameworks to guide other things versus an evaluation strategy. The next agenda item will help by anchoring this discussion in the context of one specific program.

Committee Member Aguilar-Gaxiola stated, even though there are indications of how the COVID-19 pandemic has impacted the mental health of children and youth, there is still not a good sense of the extent. It is important to get the perspectives of the students, parents, and teachers. These impacts will require undivided attention from teachers over teaching the curriculum as teachers deal with the damage that the COVID-19 situation has had on children and youth.

Committee Member Aguilar-Gaxiola stated health equity can be done superficially, as it is usually done, or it can be done deeply by looking at root causes and the social determinants of health. The COVID-19 pandemic has provided an opportunity to do something more in-depth than it has been done before. It is important to have a finger on the pulse of how this is unraveling.

Vice Chair Berrick appreciated Executive Director Ewing's comment that the Committee is limited in its scope but it can make recommendation to the Commission to look at that scope. Along with that recommendation would have to be a quantification that the Committee can do at a staff level what it would take to be able to implement those broader recommendations.

Vice Chair Berrick stated the need for the Committee to stay within its scope. The Committee's job is to help the counties think about how to evaluate what they are doing, to work on its own evaluation abilities, and to let those evaluative efforts speak to implications for continuing change, changing direction, etc.

Committee Member Loera stated his assumption that this evaluation will be incorporated into the school infrastructure, probably into the curriculum. He stated he has learned that teachers do not like someone from the outside dropping a solution on their laps and telling them to implement it. Teachers like to be a part of the discussion and solution development, especially if it must be aligned or incorporated into the curriculum. Most teachers trying to implement mental health see it as that they are not a therapist or that more is being added to their plate of what must be covered as part of the standards.

Committee Member Loera stated the need for teachers to be part of the discussion of what should be measured early on in order to get buy-in from teachers. The implications or recommendations need to be framed as standards that align with the academic standards.

Committee Member Loera stated the tendency when identifying gaps is to go straight to solutions that have worked in the past, but past solutions do not address new situations such as the COVID-19 pandemic, which has caused a new host of issues. This framework needs to focus on well-defined root causes and the solutions must be aligned with those causes in order to solve the right problems. For sustainability, teachers must be involved in the process and they need to incorporate recommendations as part of their daily classroom activities or curriculum.

Public Comment

Steve McNally, family member, stated this Committee is perfect because it is not siloed. The speaker agreed with Committee Members Aguilar-Gaxiola and Brook to look at more of a vision mapping – to forget about what is or is not being done and determining what the Committee wants to do, and then seeing if that data exists. There is a lot of available data that most individuals do not know has been collected.

Steve McNally stated many individuals in this field like to plan but do not like to get pinned down and they do not see data as a friend. The speaker suggested figuring out what the Committee Members want to do, and then craft a plan. The speaker volunteered their time to meet monthly and stated, if the other individuals on today's call would join them, there would be 38 individuals per month to move the project forward.

Agenda Item 4: Information and Discussion to Guide Evaluation of the Mental Health Student Services Act (MHSSA)

Chair Danovitch stated one of the things discussed is whether the Evaluation Committee should focus on one thing or more than one thing. In the two dimensions of evaluation discussed above – one, the possibility of continuing with the agenda around the evaluation framework that is useful in informing evaluations for evolving programs such as the MHSSA, and two, proposing an evaluation that would do what Committee Members have highlighted that they want to see done as well. He asked the Committee to consider creating a Subcommittee to focus in on these two dimensions. This would allow Committee Members with expertise in one or the other domain to focus on the area that dovetails most with their expertise.

Chair Danovitch stated the Committee will receive a brief presentation on the MHSSA to set the stage for the question of how to set an evaluation strategy that evaluates the effectiveness of the MHSSA. This is important because the programs supported by the MHSSA are likely to be expanded to more counties under the Governor's Revised Budget. Evaluation of the MHSSA is required in the legislation and is critically important to improve local programming and to scale-up successful and sustainable models across the state. He asked staff to present this agenda item.

Cheryl Ward, Health Program Specialist and Project Lead for the MHSSA and Triage School-County Collaboration, provided an overview, with a slide presentation, of the background, budget updates, goals, data tool, and learning collaborative of the MHSSA. She stated data will be collected for the data tool from July 1st to September 31st. This first report of aggregate data will be due to the Commission on November 15th. The next meeting of the learning collaborative of 30 counties will be in September.

Discussion

Chair Danovitch asked what the county/school partnerships look like and to what extent are they similar or varied.

Ms. Ward stated the partnerships have commonalities and differences but, for the most part, the goal is to connect behavioral health with the school districts and the county offices of education so they can communicate and set up systems. Many have regular meetings, on-campus therapists, or wellness centers but the idea is developing the communication and system structure between the counties and education so they connect with each other.

Ms. Ward stated a summary of the 18 current MHSSA partnerships, which lists the participants in each partnership and how they operate together, was distributed to Committee Members.

Chair Danovitch asked Ms. Ward to forward the summary to staff to ensure that Committee Members and public participants have access to it. He asked Dr. Early to facilitate the discussion on this agenda item.

Dr. Early stated the MHSSA Data Collection Tool and the MHSSA Evaluation Framework were included in the meeting materials to be used as a starting point for today's discussion. She asked for guidance on evaluating the MHSSA based on what was learned today and what was provided in the meeting materials. She asked the following question to facilitate the discussion:

1. What would be appropriate measures and a monitoring strategy for evaluating the MHSSA? Specifically, what could be appropriate process and outcomes measures, given the heterogeneity of MHSSA program goals and services?

Committee Member Castillo Sumi suggested the School Health Assessment and Performance Evaluation (SHAPE) system, a tool developed by the National Center for School Mental Health, which is a public-access, web-based platform that offers schools, districts, and states a

workspace and targeted resources to increase the quality and sustainability of comprehensive school mental health systems.

Committee Member Radzik asked about data collected prior to the grant to allow a pre- and post-test comparison, which is one way of evaluating.

Dr. Early stated not for the students that will be served in this program, but the California Department of Education (CDE) data is available from 2004. The Business Associate Agreements (BAAs) and the individual-identified data will be important because, once students are flagged, that data can be compared to the CDE baseline pre-test data. There ultimately will be pre-, during, and post-test comparisons.

Committee Member Radzik asked who does the flagging and what is the determination on who will be served in the program.

Ms. Ward stated individuals can be flagged through teachers, assessments, referrals, wellness centers, and working with the families.

Brian Sala, Ph.D., Deputy Director, Research and Chief Information Officer, stated, regarding pre-/post-data, the data linkages at the state level are limited because this project will give a list to another organization to match. If the student is not known to the mental health system, pre-information will not be available. After identification, a second list can be submitted to get pre-information on individual students.

Vice Chair Berrick stated the framework offers interesting opportunities such as the fact that there is little data on the mental health services impact on disparities but there is good data on things like suspension and expulsion. He suggested measuring if these interventions reduce suspensions and expulsions and if they were done in ways that lower the disparity levels.

Committee Member Loera stated there is a tendency to focus on students when they are already in crisis. It is easy to measure because they come already in need of services. He suggested measuring more upstream how many lives were changed and what best practices were done in schools that helped students learn coping mechanisms to allow them to manage the risk factors being faced. He stated it would be nice in the end to list the best practices in prevention and early intervention that work and that change life trajectories.

Committee Member Lyons Newman suggested unique systems-change elements around early intervention, consumer input, and involvement. These may be areas to pull out, such as how much parent and youth involvement there is in providing input and feedback into the system design and informing the needs that inform the programs, how early problems are being detected, and how early intervention is happening.

Committee Member Castillo Sumi stated, regarding the Multi-Tiered System of Support (MTSS) being implemented by the schools, if students are receiving mental health treatment within the school system, then there is a way to track them. These are Tier 2 and Tier 3 services; however, Tier 1 is a huge part of MTSS. She asked how to capture this because there might be students that are receiving services within Tier 1 who are not being captured. She

asked how to capture the dosage of services that students are getting to be able to achieve certain outcomes. There is a greater reach beyond Tier 2 and Tier 3 services. She asked how to capture the complexity of the system. She stated the need to answer what makes interventions work under what conditions, and for whom. It is as important to understand who is not being reached and why not.

Committee Member Brook stated there is not funding available for evaluation. The Commission has staff, but no funding to collect data. He suggested sending a letter to the Governor saying an evaluation cannot be done. He suggested scheduling a meeting with all the meeting participants face-to-face to reach an agreement on what ought to be done. A design is needed, not examples of pre- and post- test comparisons. Other organizations and initiatives have gone into schools and made a huge difference in grades, risky behavior, reduction in post-traumatic stress syndrome, and increasing justice and equity. This is not an open field.

Committee Member Brook stated the first question is if the way the MHSA was set up and written is able to be evaluated, given the funding and staff available. He asked if there are enough resources to do anything that is worth doing to answer these questions.

Committee Member Brook stated the second question is whether anything can be done without meeting face-to-face. The Governor should understand that this cannot be done with no design setup for evaluation and no funding to collect new data. He stated the need for the Committee to agree upon the minimum thing to be done to be consistent with improving whether everything being done for students will make a difference in their lives. The two issues that are paramount are grades and health. He asked if the design will answer the question if the MHSSA has made a difference or if students are improving.

Dr. Early stated the funding is important to note. Because of the infrastructure that is under the Commission's guidance, the Commission had few research staff and analytic infrastructure capability and capacity pre-2019. An analytic team has been built, under the Commission's leadership, that can now be utilized and leveraged to use the $5 million to do much more than what it would normally cost to do an evaluation of something of this scope and magnitude. Staff will work with this Committee and engage with communities to develop an evaluation framework from the ground up.

Vice Chair Berrick asked about realistic big-picture questions considering the available data and the broader questions about the framework and impacts.

Chair Danovitch stated he has heard two questions from Committee Members: how much resource is available or needed to ask and evaluate questions, and what can and should be evaluated. He asked the Committee to determine what it wants to evaluate and then determine how to resource it.

Public Comment

Steve McNally stated there is so much power and influence in this room, and yet, it seems to be wasted on mundane things that can be delegated. It is frustrating to watch this meeting, knowing about all the power in the room to connect with different individuals and to make

things happen. Behavioral health creates work because individuals do not do what they are required to do, and the state, counties, and agencies do not work well together. The territorialism and defensiveness are difficult to watch as a community member. The speaker stated the need to do better.

Steve McNally asked what the superintendent of education thinks about ensuring that the funding gets leveraged and done correctly in the schools. There are two individuals telling the schools what they can do. No one wants to have this discussion but it needs to happen so this funding is not wasted.

Committee Member Aguilar-Gaxiola agreed that it is important to come together to potentially make a difference. The MHSSA goals are on target and can provide the roadmap and specificity required. He suggested more attention be paid to the evaluation components of the goals and the topics for the data. One of the big challenges is how to provide services at different levels of need for students. He suggested more input on the strategic framework and the evaluation components, goals, and topics. One can inform the other.

Committee Member Ishikawa stated one of the things she has been wrestling with, when thinking about the framework and the discussion around outcomes and the specificity of the evaluation for the MHSSA, is what will happen to the counties with grants that were awarded a year ago. She asked if the framework will adjust based on what these counties have already been doing or have proposed to be doing. She asked if the grantees will be expected to adjust the information they have been collecting in order to fit into the proposed statewide evaluation framework or if it will be based on when services were launched. This applies to the MHSSA but also to historical programs and services. She asked how to strike a balance between adopting this universal evaluation framework for the MHSSA versus allowing the grantees to have local control and specificity over their evaluation.

Chair Danovitch agreed with the question about whether there are overarching evaluative questions that all grantees should address while, on the other hand, there will always be specific evaluative questions that are important at the program level. He stated he also heard another version of the resource question, which is if data has to be collected, who is expected to collect it? How is that resourced? Is there another mechanism to get what needs to be achieved?

Wrap-Up and Adjourn

Chair Danovitch summarized the feedback heard today: instead of a general framework, focus on an evaluation strategy for the MHSSA, and create a proposal for a broader evaluation strategy of the MHSA.

Committee Member Radzik stated the need to think about sustainability when thinking about grants. She stated she hoped to help these school districts sustain the interventions that this funding has offered them. She hoped that this Committee will provide feedback to individuals to continue to provide mental health services for young people where they do not have to apply for grants but that it is part of the services for young people. The goal of the Committee is to help with sustainability.

Chair Danovitch stated the next Committee meeting will be held on September 1, 2021. He asked Committee Members to send comments and feedback, particularly on his last question on the work that will be done between now and the next meeting.

There being no further business, the meeting was adjourned at approximately 4:00 p.m.

AGENDA ITEM 2

Information

September 1, 2021 Research and Evaluation Committee Meeting

Triage Crisis Services – An Overview of the Triage Grant Program and Preliminary Findings from the Evaluation of Triage Program Implementation

Summary: MHSOAC staff will provide an overview of the Triage grant programs, the lessons learned, program successes and challenges, the implementation of a statewide evaluation plan and discuss the preliminary findings from the formative evaluation.

Background: Senate Bill 82, 2013 known as the ***Investment in Mental Health Wellness Act***, created the Triage grant program which provides funds to California counties to increase capacity for client assistance and services in crisis intervention, stabilization, treatment, rehabilitative mental health services and mobile crisis support teams. Services are designed to increase access to effective outpatient and crisis services, provide an opportunity to reduce costs associated with expensive inpatient and emergency room care, reduce incarceration, and better meet the needs of individuals experiencing a mental health crisis in the least restrictive manner possible. Triage services allow crisis personnel to reach out to people during crisis before their situations become more desperate, linking them to appropriate services. The Mental Health Wellness Act of 2013, SB 82, provided $20 million in grants to hire triage personnel statewide. Those mental health workers provided crisis support services at shelters, jails, hospitals and clinics, including mobile crisis support teams. The availability of crisis intervention services can divert people from incarceration and lessen the use of hospital emergency rooms and psychiatric beds. The Triage grant program provides services to adults, transition age youth and child populations.

Presenters:
Tom Orrock, MHSOAC, Chief of Operations and Grants Division
Kai LeMasson, PhD, MHSOAC Sr. Researcher

Enclosures (0): None

Handout (1): PowerPoint presentation

AGENDA ITEM 3

Information

September 1, 2021 Research and Evaluation Committee Meeting

An Approach to Statewide Evaluation with an Application to Triage Programs

Summary: Through partnerships with state agencies, MHSOAC has developed a comprehensive data infrastructure. MHSOAC staff will present on the Commission's ability to conduct a statewide evaluation of children and youth mental health programs and services through linking to different data sources. Commission staff will also present a plan for evaluating Triage Program outcomes (summative evaluation) that may serve as an overarching strategy for evaluating MHSA children and youth programs.

Presenters:
Mike Howell, UC Researcher and Data Integration Manager
Denis Hulett, MS, MHSOAC Researcher
Heike Thiel de Bocanegra, PhD, MPH, MHSOAC Researcher Manager

Enclosures (0): None

Handout (1): PowerPoint presentation

AGENDA ITEM 4

Action

June 17, 2021 Research and Evaluation Committee Meeting

Triage Summative Evaluation Plan

Summary: Committee members will advise the Research and Evaluation Division on the ***Triage Summative Evaluation Plan*** presented in Agenda Item #3. Through didactic dialog led by a facilitator, Committee member feedback and recommendations will be captured and used to revise the evaluation plan. This segment will include a public comment period and vote.

Discussion Questions:

1. Regarding the Commission's data infrastructure, are there major outcome domains or variables missing? What are your recommendations?
2. What are your thoughts on the Triage Summative Evaluation plan?
   - Are we asking important evaluation questions? What suggestions do you have for improving the framing of those questions, given our charge to conduct a statewide evaluation of highly heterogeneous grant programs?
   - Given the program and data constraints, how would you suggest we refine our methods to answer these important evaluation questions?
   - What suggestions do you have for improving evaluation of the next round of Triage grants?
3. How can we improve this evaluation's attention to equity issues?

Facilitator:
Brian Sala, Deputy Director of Research and CIO

Enclosures (1): (DRAFT) ***Triage Summative Evaluation Plan***

Handout (1): PowerPoint presentation

Proposed Motion: The Committee endorses the Chair and Vice-Chair to work with Commission staff to revise and finalize the Triage Summative Evaluation Plan consistent with the September 1, 2021 committee discussion.

Mental Health Services
Oversight & Accountability Commission

TRIAGE SUMMATIVE EVALUATION PLAN

PREPARED BY:

DENIS HULETT, MS

HEATHER BARR, MPH, CPH

KAI LEMASSON, PHD, MS

HEIKE THIEL DE BOCANEGRA, PHD, MPH

PRINCIPAL INVESTIGATOR

DAWNTE EARLY, PHD, MS

CHIEF OF RESEARCH AND EVALUATION

September 1, 2021

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AN APPROACH TO STATEWIDE EVALUATION WITH AN APPLICATION TO TRIAGE PROGRAMS

EXECUTIVE SUMMARY

The Mental Health Services Oversight and Accountability Commission leads the statewide evaluation of SB 82/833 Triage Crisis Services grants to counties. These grants allow counties to increase local capacity by hiring personnel to provide crisis intervention, diversion from jails and hospitals, and linkages to mental health treatment appropriate in the community.

Counties implemented the first round of Triage grant proposals from 2014-17. Grantees conducted local evaluations, making it difficult to tell a statewide story. A California State Audit report found that "without the statewide metrics, local Mental Health Services Act stakeholders are unable to fully evaluate the effectiveness of the triage grants" and recommended the Commission conduct a statewide evaluation.

In response, the Commission developed a plan to evaluate the impact of crisis services on client outcomes (summative evaluation) for the second round of Triage grants. Under the Commission's direction, UCLA and UC Davis are evaluating Triage implementation.

The summative evaluation outlined below seeks to understand the impact of Triage grants on post-crisis emergency department use and hospitalization, arrests and recidivism, employment, and educational outcomes (for children). To measure these outcomes, the Commission leveraged its partnerships and data infrastructure, and developed a strategy for statewide evaluation of mental health programs and services. The Commission established data-sharing relationships with several California State agencies including the Department of Justice, the Department of Public Health, the Employment Development Department, and the Department of Education.

The Commission also partnered with Triage grantees to receive information about clients who accessed their crisis services (via a safe, HIPAA-compliant transfer and storage system). This information will be linked to databases from the state agencies listed above to evaluate the impact of Triage programs on various outcomes. A Difference in Difference (DiD) research design, utilizing a matched control group, will be employed to examine outcomes two years pre- and post-intervention. This methodology allows for the control of external factors other than program participation, such as COVID-19 that may have an effect on individual outcomes.

The Triage summative evaluation plan presented here can serve as a template to evaluate other state mental health programs such as the Mental Health Student Services Act (MHSSA), which will be discussed at the January 2022 Research and Evaluation Committee meeting.

BACKGROUND

This document presents the Commission's plan to measure Triage grant programs' impact on client outcomes. We present the main summative evaluation questions and describe the outcome measures, the research design and analysis, and the limitations inherent to this approach. Lastly, we discuss how the approach to evaluating Triage programs can be applied to the evaluation of other mental health programs such as the Mental Health Student Services Act (MHSSA).

MHSA

The Commission is charged with the evaluation of the community mental health system as a whole, and specifically the Mental Health Services Act (MHSA). Evaluating the MHSA and the public mental health system can involve policy analysis, formative and process evaluations, and/or evaluation of program impact on clients (summative or outcome evaluation).

As specified in the MHSA, state oversight bodies are jointly responsible for measuring client outcomes, and specifically the seven negative outcomes associated with mental illness:

- Suicide
- Incarceration
- School failure or dropout
- Unemployment
- Homelessness
- Removal of children from their homes
- Prolonged suffering

The ability to evaluate the impact of mental health programs and services on these outcomes relies on multiple data sources, that are typically not housed in a single state agency. Statewide evaluation can be bolstered by linking state databases to measure a wide range of outcomes.[1]

DATA INFRASTRUCTURE

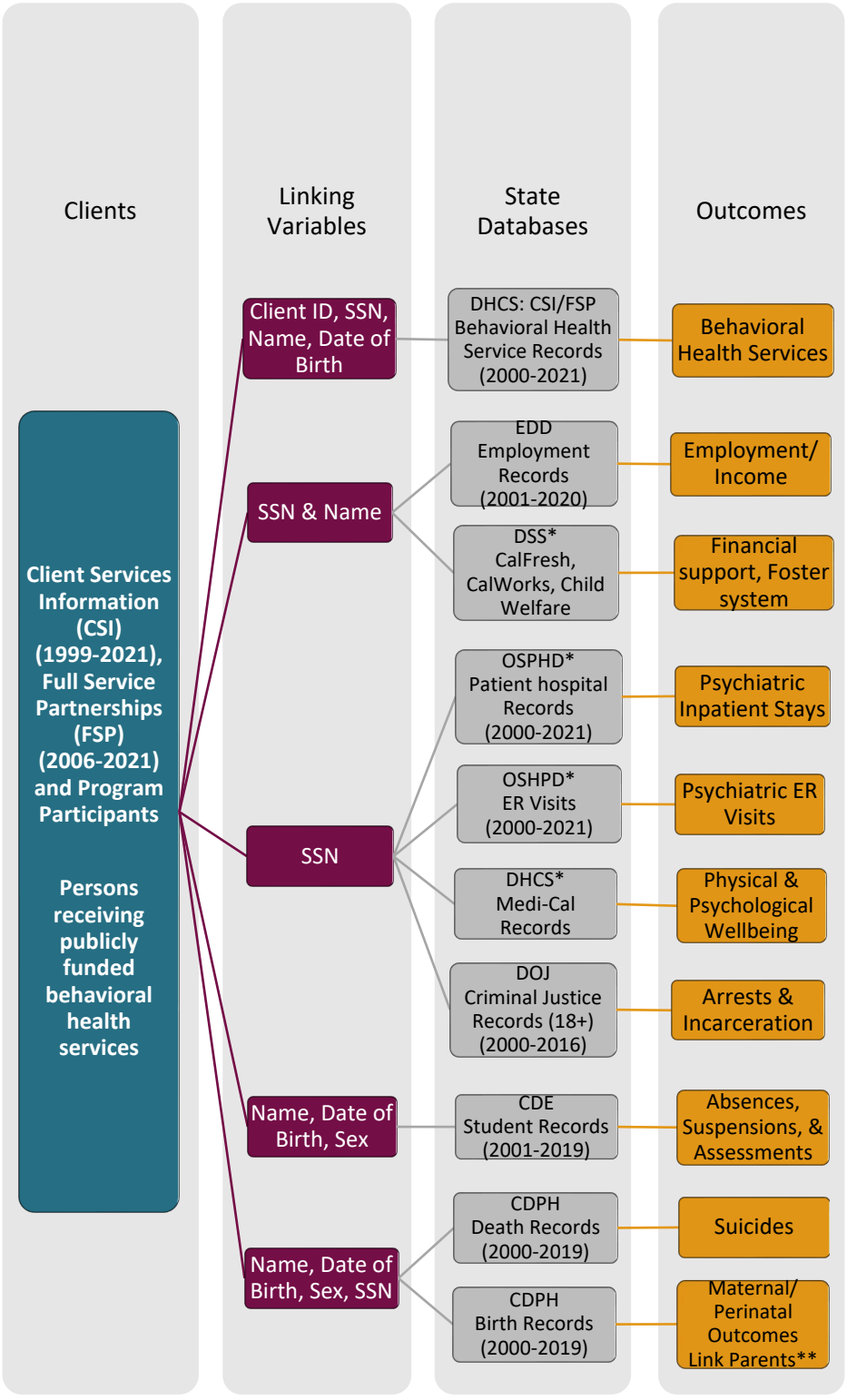
In recent years, the Commission has acquired data from other state agencies and linked that data to clients in the public mental health system.[2] At the heart of the Commission's data infrastructure is the Client & Service Information (CSI) System, a client-level data system maintained by the Department of Health Care Services (DHCS). CSI contains client demographic, diagnosis and service utilization data on public mental health clients (MHSA and non-MHSA).[3] In addition, the Commission has access to the Data Collection Reporting (DCR) System that houses information about clients participating in Full Service Partnerships (FSP).[4]

The Commission also successfully incorporated data from the Department of Justice (DOJ), the California Department of Education (CDE), the Employment Development Department (EDD) and birth and death records from Vital Statistics into its data infrastructure system. These data linkages allow the Commission to obtain a fuller picture of mental health service clients' experience across time, eventually across a lifespan.

The Commission is currently seeking data from the state's Medi-Cal program, the Department of Social Services (DSS), and the Office of Statewide Hospital Planning and Development (OSHPD). These data will support analyses of other client outcomes including emergency department visits, inpatient stays, medication provision, health outcomes, domestic violence, and out-of-home placement of children.

Figure 1 illustrates the Commission's data infrastructure, including the identifiers used to link the mental health service clients to state agency databases, and some of the outcomes that can be monitored as a result.

Figure 1. Evaluation Data Infrastructure and Outcome Sources



*Pending access

**Identifying who is a parent allows for investigations into maternal depression and other effects of childbearing upon behavioral health.

THE TRIAGE SUMMATIVE EVALUATION

This section describes how the Commission's data infrastructure will be harnessed to evaluate SB-82/833 Triage grant programs.

Senate Bill (SB) 82, *the Investment in Mental Health Wellness Act of 2013* provides grant funds to improve access to and capacity for local crisis mental health services. The grant funds the hiring of Triage crisis personnel who provide crisis intervention, treatment, and case management services designed to better meet the needs of individuals experiencing a mental health crisis in the least restrictive manner possible.

The Triage evaluation will address the following legislative objectives:

- Expanding crisis treatment services by adding crisis residential treatment beds, crisis stabilization services, Mobile Crisis Support Teams, Triage personnel,
- Improving the client experience, achieving recovery and wellness, and reducing costs,
- Reducing unnecessary hospitalizations and inpatient stays,
- Reducing recidivism and mitigating unnecessary expenditures of law enforcement, and
- Expanding the continuum of services with early intervention and treatment options that are wellness, resiliency, recovery oriented in the least restrictive environment.

The first round of Triage funding was awarded to 24 counties (2013-17). Twelve of the original counties applied for and received funding for Round 2 in addition to 8 new counties. The 2018-2022 Round 2 Triage grant program was extended with SB-833 to include funding on crisis services for children.

Round II grant funding consists of 30 Triage programs operating in 20 counties:

- 15 County programs for adults and transition-age youth (TAY),
- 11 County programs for children and their families, and
- 4 programs to enhance partnerships between counties and schools.

Triage interventions vary widely in scope, service location and delivery model because they were developed by the counties to meet the unique needs of their communities. The diverse experiences in implementation will be measured by the formative evaluation conducted by UCLA and UCD.

TRIAGE EVALUATION QUESTIONS

The following questions are designed to respond to the legislative objectives and guide the summative evaluation.

(1) Do SB-82/833 programs for adults, TAY and children:

- Reduce psychiatric hospitalizations?

- Reduce the rate of mental health emergency department encounters?
- Reduce arrests and recidivism?
- Increase participation in gainful employment?
- Provide linkages to other behavioral health services and increase provision of those services?

(2) Among behavioral health clients under age 16, do SB-82/833 programs positively impact school related behavior?

OUTCOME MEASURES

Leveraging the data infrastructure shown in Figure 1, Table 1 describes the outcome measures that have been selected for the statewide evaluation of the Triage programs.

Table 1. Triage Evaluation Outcome Measures

Outcome measures	Description
Behavioral Health Services	Service linkage and receipt of post-crisis services (e.g., crisis stabilization and crisis residential services, case management, and outpatient behavioral health services).
Employment	Participation in the workforce.
Psychiatric inpatient stays	Reduction in future inpatient psychiatric hospital stays (post receipt of a crisis service).
Psychiatric ED visits	Reduction in future emergency department visits (post receipt of a crisis service).
Arrests	Reduction in future arrests (post receipt of a crisis service).
Recidivism (Arrests/ Convictions)	Recidivism defined as either an arrest after a previous arrest and an incarceration after a previous incarceration (30 days prior or on the date of Triage entry).
Education	K-12 student outcomes (e.g., absenteeism, suspensions, and standardized test scores) post-receipt of crisis services.
CSI Service Categories	The types, frequency, and duration of mental health services that clients receive post their first encounter with Triage personnel.

Beyond the data infrastructure mentioned above, the Commission has established relationships with the counties who administer Triage programs and executed Business Associates Agreements with each county which allows for the transfer of Protected Health Information/Personally Identifiable Information (PHI/PII). This will include client demographic information and clinical outcomes for Triage clients (some of whom may not be reported to the CSI).

After receiving client information from the Triage grantees, the Commission will link that information to the Client Services Information (CSI) database using a combination of client ID, SSN, name, DOB, sex, and

the county in which services were provided. To obtain data for the outcomes listed in Table 1, the Commission will link Triage clients (both CSI and non-CSI clients) to the statewide databases listed above in Figure 1.

RESEARCH DESIGN AND ANALYSIS

Evaluation study designs of health interventions and programs commonly use longitudinal interrupted time series (ITS) designs to compare outcomes pre- vs. post-intervention.[5] However, external factors other than program participation may have an impact on individuals. One salient example is how the COVID-19 pandemic affected employment, housing, food security, and behavioral health. Mandated lockdowns, school closures, and social distancing requirements have taken a toll on Californians' mental health and on the delivery of mental health services.[6] These and other unobserved or poorly measured statewide factors can introduce bias in the evaluation findings.[7]

One method to mitigate the effects of unobserved factors is a randomized-control study design.[8] This method randomly assigns individuals to an intervention group, or a comparison group called "controls," and the outcomes of interest are compared between the two groups. However, random assignment of persons into the Triage intervention is not possible for ethical reasons. Thus, the Commission will implement a non-randomized control group, pre-post-test design called an ITS Difference in Differences (DiD) study design.

The success of this design to make strong inferences relies heavily upon the creation of a control group that is similar to the intervention group in important ways.[9] Thus, each Triage client will be matched with a non-Triage control drawn from the clients in the CSI database who did not receive a Triage intervention. The assignment of controls will be made using propensity scores developed by a select set of characteristics including age, sex, and diagnoses (see appendix A for details of the control assignment process). Each control will be assigned an index Triage date which is the date their matched Triage counterpart had their first encounter with Triage staff. The DiD design will compare the experience pre-/post-Triage index date among the Triage clients to the pre-/post- experience of the non-Triage control group. Both groups might improve or worsen over time on an outcome variable. The DiD model explores whether the rate of change (trend) among Triage clients is significantly different from the change observed among non-Triage clients. It also allows for analysis of an immediate effect of the Triage intervention.

Figure 2 provides a graphical example of three Triage clients and matched non-Triage controls. The Triage clients are labeled T1-T3 while the controls are labeled C1-C3. Note that each Triage client has an initial Triage encounter (herein referred to as an index Triage event) date that falls somewhere within the study/evaluation period. Controls are assigned the same index date as their matched Triage client. Where possible, the paired clients will have corresponding index events such as an arrest or ED visit proximate to the date of Triage. This will serve to identify clients at similar points in their mental health trajectory. Where possible, client experience will be observed for two years before and after the index date as the available data allows.

Figure 2. Case Control Longitudinal Framework for Difference-in-Different (DiD) Study

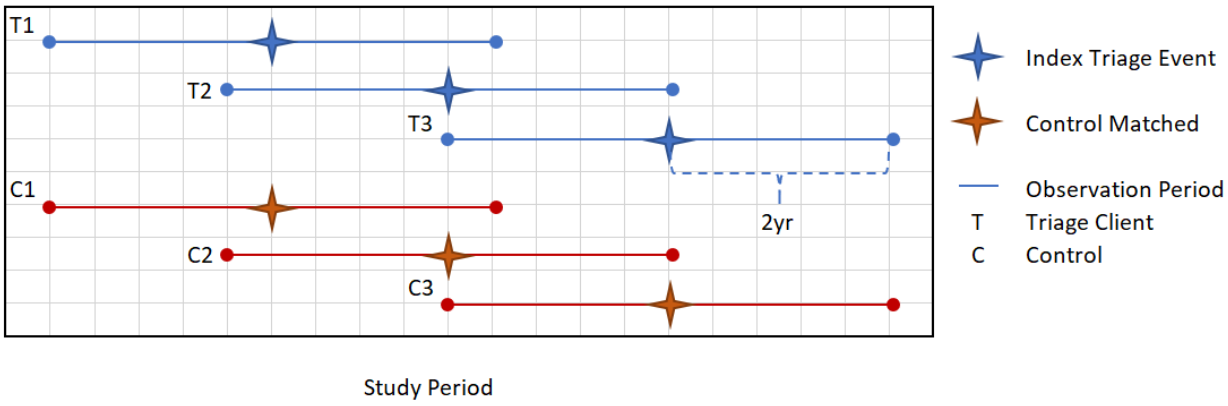
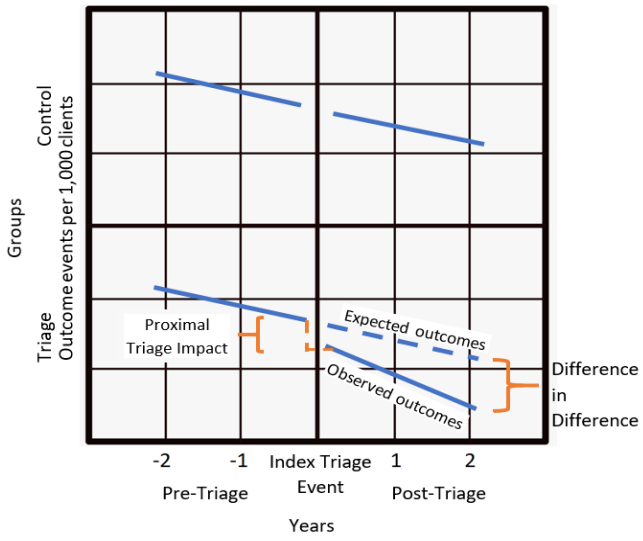


Figure 3 is a graphical representation of the DiD design. The figure shows an example where the average rate of outcome events per 1,000 clients decreases over time for all individuals in the study regardless of participation in the Triage program. However, the rate of reduction post-Triage index dates is decreasing faster among the Triage clients than among the non-Triage group. There is also a sharp reduction observed immediately after the index triage event labeled proximal Triage impact. The differences between the slopes of the post-Triage regression lines as well as the proximal Triage impact reveal the effect of the Triage programs upon the Triage clients.

Figure 3. Difference-in-Difference (DiD) Statistical Analysis



To model these differences in arrests, ED visits, and inpatient stays, a zero-inflated Poisson (ZIP) ITS regression model will be employed. The ZIP regression assumes that most persons in our analysis will not have an outcome event. ZIP assumes that the sample is a "mixture" of two types of persons: one group whose counts reflect standard Poisson count distribution, and another absolute zero group who has zero probability of a count greater than 0.[10]

Differences pre- and post-Triage and between the Triage and non-Triage groups will be modeled and tested for statistical significance. However, there are two tests that are of principal interest to evaluators:

1) The interaction between the pre-/post differences and the Triage/non-Triage differences. This interaction term tests the differences in regression line slopes between the Triage and control groups post-index Triage date;

2) Differences in the actual vs. predicted post-Triage regression intercepts revealing the impact of the Triage programs proximal to the index Triage date (i.e. an immediate intervention effect).[11, 12] See appendix C for details of the ITS DiD model.

SUB-ANALYSES

Sub-analyses will be performed grouping programs with similar objectives and populations. Analyses by race, age and ethnicity will assess equity for Triage services rendered and outcomes achieved. Appendix B provides Triage program groupings by program objectives and age.

Sub-analyses for Triage currently under consideration are:

- Individual counties
- Triage program type (Mobile crisis, outreach, clinic, crisis line, school-based clinician)
- By race/ethnicity
- Age
- Trauma
- More than one primary diagnosis group
- Geographic region
- Place of birth
- Language

COST ANALYSIS

In its simplest form cost analysis is the process of subtracting the costs associated with a program or intervention from the costs avoided. The CDC (2016) identifies key concepts cost analysis: analytic perspective, analytic horizon, and defining costs. The analytic perspective identifies who bears the cost and who receives the benefits. The analytic horizon is the period over which the costs avoided are to be considered. It is not hard to imagine the benefits of a program continuing for a lifetime, however a period of a few years is often more meaningful to policy makers. Defining costs can fall into two realms, financial and economic. Financial costs are the direct costs in dollars spent on an intervention or treatment. Economic costs fall in the category of indirect costs such as volunteer time, donations of services or space, and productivity gained or lost. There are also intangible costs that are more difficult to measure such as emotional burdens and are less likely to be included in cost calculations.

For the Triage evaluation the analytic perspective will be from that of the state, specifically the funding of the Triage grants. While we acknowledge that the costs associated with mental health care are multi-

sourced, the focus here will be on the cost of funding the Triage grants only. The analytic horizon will be limited to two years from the date of an index Triage event. Among clients for whom we do not have a full two years of post-Triage observation annualized costs will be calculated. The financial costs avoided will be the public expenditures associated with the outcome events measured such as arrests, incarcerations, psychiatric ED visits and inpatient stays. The cost analysis will result in an assertion that for every dollar spent on a Triage grant between *X* and *Y* dollars of state and local expenditures were avoided.

The estimations of the costs avoided depend upon assigning costs to the outcome events being measured. Evaluators will conduct an extensive review of the literature to generate average estimates for arrests, psychiatric ED visits and psychiatric inpatient stays. The OSHPD emergency department and hospital discharge records have the expected payer source recorded. This variable may be used to differentiate between public and private expenditures. A lack of transparency makes an assessment of the costs for inpatient psychiatric treatment challenging. Cost varies dramatically depending on the payer, setting, and treatment type.[13]

LIMITATIONS AND VALIDITY THREATS

CSI DATABASE

Utilization of services reported to the CSI is a centerpiece of this analysis. It is the sole source of information for creating a group of non-Triage controls. It is also a source of historical service provision for Triage and non-Triage clients alike. While the MHSA requires counties to report all public mental health services and clients (both MHSA and non-MHSA) to the CSI, Triage evaluators have heard from at least one county that only billable services that are eligible for state reimbursement are likely reported to the CSI. Given California's complex system of mental health care funding this might result in under-reporting of services provided to persons not eligible for Medi-Cal, services not covered by Medi-Cal, or services provided at a site not eligible for Medi-Cal among others.[14] Furthermore, the Commission analysis of the CSI data found that the completeness and timeliness of service reporting varies widely from county to county. In 2020, the Commission published a dashboard with information about CSI clients reported by counties.[15] It is the Commission's hope that such reporting will not only serve to better inform the public about our state's provision of mental health services, but also encourage counties who may be lagging in their CSI reporting to improve. In addition, Commission researchers reached out to county representatives to encourage reporting if there was a substantial lag. Improved reporting to CSI is essential to the validity of this evaluation.

One additional challenge of using the CSI database is the standardization of data that are transmitted by counties for Triage clients. The Research and Evaluation Division is developing metrics and variable definitions that will be used uniformly in future evaluation of programs.

Triage evaluators recommend establishing data requirements with counties prior to awarding funding. The Commission has developed ways to assure counties of the privacy of data. For Triage, we pursued Business Associate Agreements (BAAs) with all counties to ensure privacy and security of any and all PHI/PII provided on Triage clients to meet HIPAA compliance.

RECORD LINKING

Linkages of Triage and clients reported to the CSI relies heavily on linking these clients to their records in other state databases. Each database has its own set of linking criteria and contains some level of missing or incorrect data. In cases where name, sex and date of birth are the primary linking variables, common names may prevent a valid link. Linking errors come in two forms, false positives where two records are incorrectly linked and false negatives where two records that should be linked are not. Depending on the information available, strategies may be employed to estimate these errors. However, for the purposes of analyses such as program evaluation, knowing the error rates is not nearly as important as assessing the degree to which the errors are not randomly distributed.[16]

Studies have shown that it is common for linking errors to be unevenly distributed across populations and thus introduce bias within analysis. For example, adult women who change their name upon marriage may cause more linking errors than individuals who do not change their name.[17] Younger adults are more likely to change locations than older adults. Individuals from varied ethnic groups may have names that are difficult for others to spell or they may inconstantly use a Western standardization of their name.[18] On average, African Americans are more reluctant to share their social security number than other races.[19] A review of the literature by Bohensky et al. identified differences in linking error rates by age, sex, ethnicity, geography, socio-economic status and health status. [20] These and other factors introduce linking errors unevenly across sub-populations with a given study and between linking processes.[21]

To assess the potential bias introduced by linking errors, the distributions of sub-populations among the matched records should be compared to the distributions among the records that did not match. If discrepancies are found evaluators must assess whether these discrepancies are likely due to non-random distributions of linking errors or other plausible explanations. For example, Lofstrom et al., found that African Americans and Latinos are disproportionally arrested as compared to their proportions of the California population.[22] As such, more matches are expected when linking to a criminal justice database. While the impact of linking errors upon sub-populations may be difficult to estimate, the discrepancies should be reported. To mitigate threats to the validity of the analyses, weighting results by sub-population may be employed to adjust for estimated linking errors. Perhaps more importantly sensitivity analysis should be conducted to consider the effects at the extremes of these estimates.

SPILLOVER EFFECTS

Spillover effects are the phenomenon of a program's impact reaching beyond the direct program participants.[23] In mental health, a common spillover effect occurs among family members, where the mental health of one family member impacts the mental health of other family members.[24] Further, Golberstein, Eisenberg, & Downs observed that among college students who accessed mental health services there was a positive impact upon the propensity of their peers to access mental health services.[25]

Angelucci, & di Maro state the importance of understanding spillover effects and suggest ways to account for them in program evaluation.[26] In the analysis of outcomes attributed to a program such as Triage, where a control group is formed, spillover effects pose a threat to the validity of the analysis. The threat arises in cases where the program clients and controls are drawn from the same location or community. For this evaluation, Triage clients and controls will be residing in the same county when possible (see section Non-Triage control group in Appendix for details). One way to remove this threat is to choose controls from counties which do not have a Triage program. However, there is great benefit to the face validity of the evaluation by choosing controls from the same county as the Triage clients. The clients and controls will share the ability to access the same mental health infrastructure and transportation system. They are more likely to share similar cultural and social norms. They are more likely to encounter the same law enforcement agencies and reside in communities that share similar relationships with police. Environmental and economic milieus are more likely to be similar.

For this evaluation we assumed that the benefits of choosing controls from the same county as the Triage clients outweigh the threat of spillover effects. Moreover, the effect of spillover from Triage programs should be in the same direction in both the Triage and control groups, resulting in a potential underestimate of the program's impact - which is a bias preferred to an unknown bias. However, given the low probability that the Triage client and control will be in the same family, have the same peers, or even live in the same community, the effect is not expected to be substantial if it exists.

The outcomes among the members of the control group that live in the same county as the Triage clients will be compared to those who do not. While we prefer that the controls be from the same county as the Triage clients, the complex requirements of assigning a control will likely make it necessary that some controls be pulled from a similar non-Triage county, especially in less populated counties. In these cases, the pre-/post-Triage changes in outcome measures can be compared between same-county and out-of-county control subjects. Any difference observed may be the result of a spillover effect and considered during the interpretation of the results. If the impact appears substantial a sensitivity analysis should be performed adjusting for the estimated extremes of the effect.

Another validity threat is posed by the interconnectivity of mental health programs. A county may implement other MHSA programs concurrently to Triage programs, or Triage personnel grants may be used to enhance staffing of existing programs. This opens the concern of threats to validity from competing interventions that are not affecting all participants evenly. We will monitor whether this threat needs to be addressed through the inclusion of covariates in our analysis.

POWER CALCULATIONS

Statistical power is the probability of detecting a difference between populations on a measure if in fact there is a difference. Power calculations are influenced by sample size, statistical significance, and effect size. Effect size is a measure of the mean difference between two populations. In the first stages of this evaluation, the sample size is not a parameter that evaluators control. All Triage participants will be included in the evaluation. Statistical significance will be set at the traditional .05, meaning there is a 5% chance of observing a difference that is due to random errors rather than a true difference.

A priori power calculations are usually done to provide researchers with the sample size needed to detect true differences. Since the evaluators for the Triage programs do not have control over sample size and the effect sizes for these outcome variables are unknown, an a priori power will not be informative. However, post hoc power calculations will be instructive in two realms. One, if observed differences do not achieve statistical significance, low power may be the cause and the evaluators may want to raise the significance level to .10; and two, once the expected effect size is known, a priori power calculations may be performed to inform the power in sub-analyses.

PARALLEL SLOPES ASSUMPTION

An assumption of the interrupted time series difference-in-difference model herein proposed for this evaluation is that during the pre-intervention period the trends of the outcome measures among the Triage clients and the controls will be parallel. A failure to meet this assumption is a threat to valid interpretations of the results. Bilinski and Hatfield (2019) suggest an approach to evaluating this assumption. Statistical differences in pre-intervention slopes are influenced by calculations of the probability of the result being random error and the statistical power.[27] These calculations are comprised of effect size and sample size. Large sample sizes may cause statisticians to detect significant, but non-meaningful differences. Low statistical power may cause statisticians to fail to detect meaningful differences. It is also possible that there is a true difference in the pre-intervention slopes.

Bilinski and Hatfield introduce the non-inferiority model assumptions tests to assess the effects of non-parallel slopes.[28] Rather than constraining the difference to be zero, they calculate a threshold for the difference by testing whether predictions made by more complex models fall within a range predicted by the simplest model. Simulations of this methodology reveal its ability to detect meaningful differences between trends.

EVALUATION TEMPLATE USING LINKED STATE DATABASES

Previous research has demonstrated success in linking disparate statewide datasets to assess mental health outcomes.[29] The evaluation plan for the Triage programs may be considered a template for harnessing the power of linking statewide California databases to assess a mental health program's impact. This template provides a host of potential outcome measures that may be employed depending on the objectives of a given program. Figure 1 provides a schematic of the data sources used for the evaluation of the Triage programs as well as two other sources, Vital Statistics death records and Medi-Cal enrollment and claims which the Commission is in the process of obtaining. This template may be considered a foundational evaluation tool but does not replace the use of other targeted methods which may be appropriate for a given program. This template does not preclude the collection of other data that may better reflect a program's impact.

Beyond evaluating the impact of specific programs, this infrastructure could be used to identify social determinants affecting mental health. In addition, by linking different data sources, the Commission will be able to follow individuals longitudinally, beginning at birth and at times of transition such as beginning formal schooling. Data about parents before or at the time of a child's birth may provide insight to the child's early foundational environment that might be related to later developmental or

child outcomes. For example, identifying a client's birth certificate and linking their mother's social security number or name to the databases could provide information on parent arrests, wage data, and involvement with social services. Understanding a client's childhood can help illuminate trajectories to high school completion, job attainment, criminal justice involvement, and more. Similarly, factors driving the school to prison pipeline may also be illuminated using mental health, education, and criminal justice linked data. Analysis of the California DOJ records in conjunction with other available data may reveal highlight patterns that predict or relate to criminal justice outcomes. Such findings could inform future mental health initiatives that focus on criminal justice prevention.

Applying the Template to Evaluation of the Mental Health Student Services Act

The evaluation template can also be applied to evaluation of the Mental Health Student Services Act (MHSSA). The MHSSA is a competitive grant program established to fund partnerships between county behavioral health departments and local education entities for the purpose of increasing access to mental health services in schools and locations that are easily accessible to students and their families. In 2020, the Commission awarded MHSSA grants to 18 school-county mental health partnerships across California. Currently, the Commission is in the process of funding additional school-county mental health partners and, thus, will be responsible for the evaluation of a total of 50 school-county partnerships over the next several years.

The Commission is also charged with developing metrics and a system to measure and publicly report on the performance outcomes of services provided using the grants. Establishing metrics and a reporting system will require a strategic approach that leverages the Commission's existing data infrastructure, particularly its data use agreement with the CDE. The Commission will be able to access educational information from the CDE on students who receives MHSSA services, as well as examine outcome that are available through other state databases. This will provide a fuller range of metrics to measure and monitor the success of MHSSA programs, particularly for high-risk youth that the programs serve (foster youth, LGBTQ, and those who have been expelled or suspended from school).

Table 2 below illustrates different data sources that can be linked to evaluate the MHSSA and identify potential performance measures and outcomes. It is noteworthy that this is the first time a California state agency has been able to bring together objective education and public mental health data to understand the impact of mental health programs and services on the whole child.

Table 2. Data Linkage for MHSSA Evaluation and Potential Outcomes

Students Receiving MHSSA Services	**Potential Outcomes**
Linkage to CDE data	Discipline offense, discipline incidence-outcome, attendance, English Language Arts and Math assessment, graduation
Linkage to CSI/FSP data	Behavioral health service utilization
Linkage to OSHPD data	Psychiatric ER visits, psychiatric inpatient hospitalization, self-injury behavior, morbidity

Similar to the Triage summative evaluation, a difference-in-difference study design could potentially be applied to evaluation of MHSSA if an appropriately matched control group could be identified. If not, a longitudinal pretest-posttest study design could potentially be a feasible substitute.

Potential of summative of evaluation methodology to measure long-term outcomes

The potential of the summative evaluation approach addresses the limitation that that mental health initiatives may need time to show a measurable impact. Outcome data may not be available from other state database at the end of a grant cycle. Grantees can report on process, output and short-term outcomes throughout their funding period. The Commission is able to measure long-term outcomes and monitor statewide metrics beyond funding cycles utilizing both data from grantees as well as the data infrastructure discussed above.

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APPENDICES

APPENDIX A METHODOLOGICAL DETAILS

TRIAGE ENTRY

The date of Triage entry is evident for Triage clients. However, for non-Triage clients an index date will be assigned as the date at which their matched Triage counterpart entered.

NON-TRIAGE CONTROL GROUP

Since it was not possible to randomly assign persons to a Triage program or control group, propensity score matching will be used to create the non-Triage control for each Triage client. This method mimics some of the characteristics of a randomized controlled trial.[1]

The creation of a matched control group relies on the assignment of a propensity score for individuals which reflects the probability that that individual will enter Triage. This probability is a consequence of an individual's demographic and clinical features. For example, persons with severe mental illness may be more likely to have a Triage encounter than a person with a less severe illness. A person's sex, age, ethnicity, or primary language may also impact their likelihood of a Triage encounter. To identify these probabilities an initial logistic regression analysis is performed among clients with CSI records who live in the counties where a Triage program exists. The dependent variable in this regression is whether a person had a Triage event or not. The coefficients for each predictor variable may be expressed as each variable's contribution to the probability that a person will have a Triage encounter. This vector of prediction coefficients is recorded for use in the client-control matching process.

The process of matching Triage clients to non-Triage control clients has three phases, 1) establishing locations from where non-Triage controls are drawn, 2) identifying attributes for which an exact match is required, and 3) the application of propensity scores. First, it is preferred that a non-Triage control be drawn from the same county. The rationale is that such persons share the same county's behavioral health and transportation infrastructure. It is acknowledged that drawing controls from that same county as the Triage clients my introduce a spillover effect from Triage to non-Triage clients that may mute the measured effect of Triage. However, the equity of infrastructure is thought to be a more powerful driver of outcomes than a potential spillover. In counties with smaller populations it may not be possible to obtain within county controls. In such cases controls will be drawn from counties with similar characteristics.

Second, on face value it is reasonable to match clients exactly on diagnostic categories and age categories. During the initial logistic regression investigation of variables associated with a Triage event described above, variables with the strongest predictive value may be identified as candidates for an exact match. For example, participation in a Full Service Partnership (FSP) pre-index Triage date, FSP

post-index Triage date, and primary language are likely candidates. The SAS PSMatch procedure provides diagnostics to assess which combinations of variables best predict the Triage event.

Variables to be exactly matched between a Triage client and their control may be selected for methodological reasons rather than their power to predict Triage. An important feature of matched clients is the assignment of an index Triage event date to the non-Triage controls. To remove some of the arbitrariness of such an assignment, Triage clients who have particular outcome event such as a hospital stay or arrest accompanying their index Triage event will be matched with a non-Triage control who also had such an outcome event within the 30 days prior to the index date. This not only serves to better match persons on illness severity but attempts to establish a demarcating crisis from which pre-/post-Triage periods may be justifiably established for the non-Triage client. Triage clients with no such accompanying outcome event will be matched with non-Triage clients who also had no such events in the 30 days prior to the index Triage date.

Lastly, a propensity score will be calculated by multiplying placeholder variables representing each CSI client's attributes by the vector of coefficients previously generated. After meeting all the forementioned matching conditions, each Triage client will be matched with a non-Triage client whose propensity score is nearest to their own.

Modeling the effect of the Triage programs will be performed similarly for psychiatric emergency department visits, psychiatric inpatient stays, arrests, employment, and school suspensions and absences. Recidivism and Receipt of Behavioral Health Services within 6 Weeks Post-Crisis Event will have their own modeling structures. Additional sub-analyses for Triage referrals and subsequent service provision will also be described.

APPENDIX B. TRIAGE PROGRAM OBJECTIVES BY COUNTY

Programs servicing the counties vary by objective as well as activities performed to reduce the burden of crises in California.

Outreach: Outreach is a process of engaging, encouraging, educating, and/or training, and learning from potential responders about ways to recognize and respond effectively to early signs of potentially severe and disabling mental illness. These programs funded personnel to focus on outreach to individuals experiencing or at high risk of experiencing a crisis. This includes, but is not limited to, racial, ethnic, and sexual minorities, homeless, and high utilizers of emergency crisis services.

Crisis Line: The federal Substance Abuse and Mental Health Services Administration (SAMHSA) defines a crisis line as a direct service delivered via telephone that provides a person who is experiencing distress with immediate support and/or facilitated referrals. These programs staffed personnel for a local crisis line. These services help link individuals to on-going services as well as provide de-escalation at the time of the call.

Mobile Crisis: Provides a community with rapid response crises interventions. These vehicles may be staffed with clinical social workers, peer support specialists, or case managers to provide linkage to continued crisis services and deescalate on-site.

Clinic: Counties utilized funding to add staff to existing clinics. These staff may include clinicians, social workers, or peer support. These individuals assist clients in crises, or at risk of crises, with ongoing services specific to their needs.

TABLE B1. ADULT/TAY ACTIVITIES

Intervention Group	Objectives	County
Outreach	Reduce involvement from high utilizers and priority populations.	Alameda, Merced, San Francisco, Stanislaus, Ventura
Crisis Line	Reduce interaction with law enforcement. Avoid unnecessary hospitalizations.	Berkeley City
Mobile Crisis	Reduce non-emergency 911 calls. Reduce unnecessary hospitalizations. Reduce recidivism.	Butte, Humboldt, Los Angeles, Placer, Sonoma, Tuolumne
Clinic	Reduce inpatient hospitalization. Link individuals to community support and ongoing mental health services.	Calaveras, Sacramento, Yolo

TABLE B2. CHILDREN ACTIVITIES

Intervention Group	Objectives	County
Outreach	Reduce ED visits. Reduce unnecessary hospitalizations. Reduce non-emergency 911 calls.	Calaveras, Stanislaus
Mobile Crisis	Reduce law enforcement involvement. Reduce 5150/5585 holds. Reduce unnecessary hospitalizations.	Humboldt, Placer, Riverside, San Luis Obispo, Santa Barbara

APPENDIX C. INTERRUPTED TIME SERIES DIFFERENCE-IN-DIFFERENCES STUDY DESIGN

A pre-/post-intervention study design that has a contemporaneous control group that did not receive the intervention can provide strong inference when using a difference-in-differences analytic approach (Zhou, Taber, Arcona, & Li, 2016). A simple difference-in-differences (DiD) design compares changes to the means of the outcome measure pre-/post-intervention of the intervention group with the change in means among the control group. However, a simple DiD analysis will not compare trends over time between the intervention and control groups. We expect that many of the outcomes herein evaluated will show longitudinal trends in response to changes in service provision infrastructure, changes in funding, research and implementation of best practices, among other potentially unobserved systematic forces. [2] It is possible for very different trends to render the same or misleading mean values.[3] Segmented regression can be employed to produce an intermitted time series design (ITS). The ITS produces the trend lines of an outcome measure separately for the pre- and post-intervention periods. Also, using the value of the post-intervention regression line intercept predicted by the pre-intervention regression line, the predicted vs. actual post-intervention intercepts may be compared. Differences in the pre- vs. post-intervention slopes and intercepts of the trend lines may be attributable to the intervention. However, this inference is strengthened when comparing these differences to the differences observed among the control group. [4] Equation 1 describes a model for assessing pre-/post-intervention trends between intervention and control groups.

Equation 1. Interrupted Time Series Difference-in-Differences Model

$$\begin{aligned} Y_t = \ & \beta_0 + \beta_1\, time_t + \beta_2\, intervention_t + \beta_3\, time\_post_t + \beta_4\, Group + \beta_5\, Group \times time_t \\ & + \beta_6\, Group \times intervention_t + \beta_7\, Group \times intervention \times time\_post \\ & + \beta_8\, Covatiate_1 + \cdots + \beta_{(p+8)}\, Covariate_p + \varepsilon_t \end{aligned}$$

where Y_t is the number of outcome events per 1000 clients at time *t*,

$time$ = *t and* is a value from 1 to *k* increasing daily from the start of the pre-intervention study period to the end of the post-intervention (limited to 4 years, 1 to 1,460 days),

$intervention_t$ = 1 if the intervention was received at time *t* and 0 if not,

$time\_post$ = 0 if pre-intervention study period or the number of days from the start of the post-intervention study period (limited to 2 years, 0 to 720 days)

Group=1 if the subject is in the intervention group, else 0 if control,

p is the number of covariates,

β_0 is the outcome rate at *time* 0,

β_1 is the slope of the pre-intervention period,

β_2 is the change in outcome rate immediately after the intervention,

β_3 is the difference in slopes between pre- and post-intervention periods,

β_4 is the mean difference in outcome rate between the intervention group and the cohort,

β_5 is the difference of pre-intervention slopes between the intervention and control groups,

β_6 is the difference between the predicted and actual slope intercepts,

β_7 is compares the post-intervention slopes between the intervention and control groups,

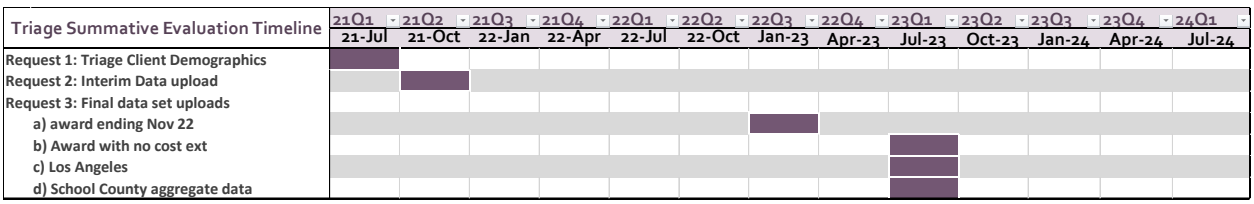
β_8 - $\beta_{(p+8)}$ are the effects of the covariates upon the outcome measure,

ε_t is the random error at *time t* that is unaccounted for by the model and is assumed to be normally distributed.

The two main coefficients of interest are β_2 and β_7. A statistically significant value for β_2 indicates that there was an immediate impact of the intervention upon the outcome events. It represents the difference between the predicted and observed intercept values of the post-intervention trend line among the intervention subjects. A statistically significant value for β_7 indicates that the intervention affected the slope of the post-intervention trend line among intrvention subjects.

A key assumption of the ITS DiD design is that unmeasured or poorly measured variables are not confounders. The pre-intervention trends of the outcome measure over time between the intervention and control groups must be parallel. A visual inspection of the preintervention outcome distributions and significance test of $\beta_5$will establish that that assumption is satisfied.[5] The assumption that unmeasured variables do not affect outcomes over time differently between groups may be investigated by comparing plots between the intervention and control groups of the outcome variable stratified by covariates (e.g., age, sex, ethnicity). Plots on each strata should show parallel trends between intervention and control groups, but the trends do not have to be linear. [6] A search of statistical methodology literature will be conducted to explore ways to detect and mitigate bias introduced my non-parallel trends.

APPENDIX D. TIMELINE



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