Oregon Emergency Medical Services for Children Advisory Committee Meeting Minutes

2023 Quarter 1 | January 12, 2023
Chairperson Matthew Philbrick
Vice Chairperson Christa Schulz, MD

Appointed Committee Member		
Committee Member Name	**Committee Position**	**Present, Absent or Vacant**
Tamara Bakewell	Family Representative	Present
Andrea Bell	Nurse with pediatric experience	Present
SunHee Chung, MD	Physician with pediatric training	Present
Jeffrey Dana	At-large member	Present
Carl Eriksson, MD	Pediatric Emergency Preparedness representative	Present
Jennifer Eskridge	Injury Prevention representative	Absent
Matthew House	EMT/Paramedic currently practicing, ground level provider	Present
Kelly Kapri	Highway Traffic Safety representative	Present
Joann Lundberg	Behavioral Health representative	Present
Todd Luther	Emergency Department Manager	Present
Danielle Meyer	Hospital Association representative	Absent
Matthew Philbrick	EMS Patient Transport representative	Present
Dana Pursley-Haner	EMS Educator	Present
Justin Sales, MD	Emergency Physician	Present
Christa Schulz, MD	Pediatric Hospitalist	Present
Jill Shipley	Hospital Trauma Coordinator	Present
Vacant	Tribal EMS Representative	Vacant

HRSA EMSC Grant Required Committee Members		
Committee Member Name	**Committee Position**	**Present, Absent or Vacant**
Amani Atallah	OHA EMS Representative - Secondary	Present
Rachel Ford, MPH	Oregon EMSC Program Manager	Present
Dr. David Lehrfeld	OHA EMS Representative - Primary	Present
Dr. Dana Selover	HRSA EMSC Grant Point of Contact	Present

Oregon Health Authority EMS & Trauma Systems Program Staff
Peter Geissert, Julie Miller

Guest Speakers and Members of the Public
Meghan Crane (OHA), Dr. Matt Hansen (OHSU), Brittany Tagliaferro-Lucas (OCCYSHN)

Call to Order | Matthew Philbrick, Chairperson

Start Time: 9:02 am
Committee Roll Call
Amani Atallah: Introduction of new EMS and Trauma Systems Program Manager, 13-year history in Emergency Medical Services, with last experience of 4.5 years with American Medical Response in Multnomah County.

Approve October 2022 Minutes | Chairperson

October 2022 Minutes were reviewed. No changes noted. Motion to approve minutes as written: Jeffrey Dana. Second: Kelly Kapri. None opposed. Motion carried.

Vice Chairperson Election | Chairperson

Request for a motion to elect a new Vice Chairperson or re-elect Dr. Christa Schulz. Dr. Christa Schulz is willing to continue as Vice Chairperson. Tamara Bakewell motioned to re-elect Dr. Christa Shultz. Second: Jeffrey Dana. Dr. Christa Shultz accepted the nomination and was re-elected for second term. Motion carried.

Vote:
Tamara Bakewell - Aye
Andrea Bell - Aye
Dr. SunHee Chung - Aye
Jeffrey Dana - Aye
Dr. Carl Eriksson - Aye
Jennifer Eskridge - Absent
Matthew House - Aye
Kelly Kapri - Aye
Joann Lundberg - Aye
Todd Luther - Aye
Danielle Meyer - Absent
Matthew Philbrick - Aye
Dana Pursley-Haner - Aye
Dr. Justin Sales - Aye
Dr. Christa Schulz - Abstain
Jill Shipley - Aye

Committee Membership | Chairperson

New Appointments 1/1/2023-12/31/2026:

Jill Shipley: Please welcome Jill Shipley to the *Hospital Trauma Coordinator* position! Jill has 20+ years of Emergency Medicine experience. Jill started career as a Paramedic for AMR in Clark County for about 10 years before starting a nursing career at Randall Children's Hospital. Jill has pediatric ICU experience is currently the Pediatric Trauma Coordinator.

Dr. SunHee Chung: Please welcome Dr. SunHee Chung to the *Physician with pediatric training* position! SunHee is a pediatrician with training in emergency medicine. SunHee works at OHSU as a Pediatric Emergency Medicine physician and is also an Associate Medical Director at Multnomah County EMS. SunHee's primary interest is in prehospital pediatric care.

Vacancy: The EMSC Program is seeking applicants for the *Tribal EMS representative* position. All applications will be reviewed, with the aim to have Committee member representation across Oregon. Committee member application: LINK

Rachel was able to connect with an Indian Health Service Headquarters employee and they reached out to the Portland Area Indian Health Service office. Rachel is working with Dr. Thomas Weiser, Portland Area Indian Health Service and Northwest Portland Area Indian Health Board employee to help identify candidates to fill the Tribal EMS position.

Comments/Questions:
Dr. Matt Hansen: Has a contact that is an OHSU Tribal Liaison who does healthcare advocacy work with the Tribes. Please reach out to Dr. Matt Hansen if you do not hear back from the other contact.
Is it possible that there is an American Indian that works for an EMS agency or fire department that covers a Tribal area, but is not affiliated with a Tribal Agency? **Rachel Ford**: Will look into the possibility.
Dr. Dana Selover: I see that it is EMS Representative. Does it have to be a person who is working in EMS? **Rachel Ford**: Yes, it needs to be someone who is working in EMS.

Committee Member Roundtable | Committee

Andrea Bell: Still in the middle of the RSV surge at Salem Hospital.

Dr. SunHee Chung: Working with EMS agencies to encourage them to bring the car seats to the hospital, so that families have their car seat at the time of discharge. This is a challenge as kids come to the hospital without car seats and cannot be discharged. Are receiving many overnight patients that are told they do not need to bring the car seat to the hospital. Will require EMS agency policy change.

Comments/Questions:
- **Matt Philbrick**: What are the negative outcomes? **Dr. Chung**: The child is brought in and cared for. A short stay in the emergency room and then the child cannot be discharged because EMS or the family have not brought the car seat for discharge. They cannot be sent to the waiting room. They must stay in the ED until the family can secure a ride to retrieve car seat. Sometimes this can be resolved if the hospital can provide a car seat. This is a statewide issue.
- **Dr. David Lehrfeld**: This is not just a pediatric-specific problem. Dr. Lehrfeld is seeing issues with adult patients not having essential piece of gear for discharge (house keys, clothes, etc.). It is a training issue and a policy issue. It is everywhere.
- **Matt Philbrick**: There is an opportunity to provide information to the EMS Pediatric Emergency Care Coordinators that are dedicated to each agency and share across the state.

Dr. Carl Eriksson: As the *Pediatric Emergency Preparedness representative* for this committee, want to note that we are coming down from the largest pediatric surge that has been seen in the last 33 years. It is worth highlighting as it had a large effect statewide. There has been a lot of coordination between the hospitals, and it has been a collective effort to serve all the kids (including older kids and adult ICU patients) who need medical attention.

The Oregon Medical Coordination Center, that was initiated to help adult ICU patients get access to timely care, has been extended to pediatrics. Heard from at least two other states, reports of children

dying in community emergency departments after being declined by children's hospitals due to lack of access during the surge. Have not heard of this occurring in Oregon. There is a planned debrief that Dwayne Hatcher is putting together. Would like Rachel Ford to participate as it may dovetail nicely with some of the EMSC Innovation & Improvement Center work. This is an open invite.

Comments/Questions:

- **Dr. Christa Schulz**: Busy caring for kids that we probably should not be caring for but waiting for beds. Three to four pediatric patients waiting for ICU beds at a time. During that time, we become more of an ICU team than a pediatric hospitalist team. Started discussing options since we are so far from any PICU about whether our team would be comfortable doing trials of CPAP or BiPAP prior to transport. Looking at ways that we can help ease the system. Starting to see fewer sick kids. Still seeing the volumes, just not as high of acuity. Transport is getting quicker. Kids waiting for peds beds. Looking forward for this wave to end. **Dr. Carl Eriksson**: Please reach out if we can help to keep some of these kids in the community. We are here to answer clinical questions.
- **Tamara Bakewell**: Would like to know what you feel is important for us to know in the family representative world of liaisons, about the communication between the family, patients, and doctors. **Dr. Eriksson**: There have been some pretty significant patient experiences through this surge. Happy to set up a separate meeting to discuss. Or if a larger forum, discuss with Matt Philbrick if there is time at a future meeting.
  ACTION: Tamara will reach out to Dr. Eriksson and Christa Schulz regarding peds surge and family organizations conversation.
- **Dr. David Lehrfeld**: Are there barriers to transporting these patients? Listening to most of the calls over the last two months, we have heard a move from intubation and CPAP to high-flow nasal canula, and that this capability has not been adopted by EMS partially because of the technology. Now that the technology is changing, not to drive the massive air tanks, is this still a barrier to moving sick kids around?
- **Dr. Schulz**: For our facility it is. Been quicker to put kids on high-flow. Then when transported, will be put on nasal canula and will arrive sicker. Requiring that the child be transported with the support that they are currently getting, will require AirLink or Life Flight. **Dr. Eriksson**: Transport over very long distances, will likely not be EMS anyway and will need critical care transport teams. Closer transports will be more eligible for EMS transports.
- **Dr. Hansen**: There are even some barriers with our specialty transport teams, like the Panda and Kids teams. They cannot necessarily support what is provided at the hospitals. It is a big challenge. Some of it is technology and some of it is how much oxygen can be stored.
- **Dr. Eriksson**: David, I am part of the EMSC Innovation & Improvement Center, and the EMSC Program and EMSC Advisory Committee is about emergency care of children to include both prehospital care and hospital care.
- **Dr. Dana Selover**: Thinking about capacity for transport for critically ill pediatric patients: How quickly is capacity overwhelmed? What is ability to surge? During surge, what is on-demand capacity? What is ideal, adequate, and sub-adequate? **Dr. Eriksson**: We have a better understanding over the past few years of the inpatient resources for kids around the state. Our collective understanding of what the transport resources are for kids are still evolving. As an intensivist, I know about Mercy Flights, AirLink, Pediatric Critical Care Transport Team, etc. It is a scattered landscape. There are some national systems mostly around evacuation. Do not know if there is one person who has a handle on all the transport resources.
- **Matt Philbrick**: Wondering if we dedicate this to an agenda item and add action items. Look at the next quarter meeting to discuss and dig into this subject.
  ACTION: Add to April meeting agenda: Barriers to Transporting Sick Peds Patients

- **Dr. David Lehrfeld**: It would be helpful to have standardized definitions and techniques. Example: Most air or ground ambulances will not transport kid under 5kgs; unsure of equipment needs. **Matt Philbrick**: Need to identify the issues: equipment, training, personnel, and/or expertise.

Dr. Carl Eriksson: Carl and Rachel Ford and are in dialog with EMSC Innovation & Improvement Center (EIIC). There is a hospital disaster checklist that EIIC developed and was published last year. It has not been rolled out on a significant level. EIIC is a group that provides a lot of data and subject-matter expertise that backs up the state-level EMSC programs. We would like to partner with EIIC. Conversation is ongoing.

Kelly Kapri: Excited that Oregon Department of Transportation can support the three EMS conferences again this year. ODOR supported Oregon EMS Conference in October 2022. ODOT will be doing the same with Eastern Oregon EMS Conference and the State of Jefferson EMS Conference. Wrapping up a grant that will provide for rural frontier responder training for those responding to motor vehicle crashes.

Joanne Lundberg: Update with surges and the utilization of mental health services. There has been an increased need for mental health services, which increases the wait times for providers and can impact emergency medicine. A lot of patients are not able to access therapy services. The wait lists are long, with providers having 9-12 month wait lists. Psychologists have a 1-2-year waitlist. Clinicians have a difficult time finding psychiatrists that accept Oregon Health Plan. This time of year, there is an increase in seasonal effective disorder. All the systems are overwhelmed to be able to support the patients. Examples are intensive outpatients instead of just outpatients, and increased wait times in referrals as well as inpatient services. With all of this, have noticed more DHS involvement with situations where families are involved. Some involuntary and some voluntary cases. A lot of kids going into foster care or respite care. Some referrals from DHS to use police, especially for families that do not have family and friends that can provide a safe place for backup (sometimes this is appropriate and sometimes it is inappropriate as there are some that have police trauma or children have extreme mental health conditions). Joanne told a positive story of a family with police involvement that was a win for the family.

Todd Luther: Oregon Emergency Nurses Association continues to support pediatric readiness by leading education programs throughout the state; recently one in Medford and one in Dallas. Also teaching emergency nursing pediatric courses throughout the state. Those are picking up some steam with the relaxing of pandemic restrictions. In March, Todd's hospital is partnering with Randall Children's to have onsite pediatric trauma education for the nursing staff.

Matt Philbrick: For crisis related work, trying to move our organization from post-incident response to comprehensive mental health supports specifically for children of EMS workers. Trying to grow a network of mental health professionals specifically for the impact it has on families. There is an increase in excitement around this. It is coming through as "how do I talk to my family about the aftermath of an accident, crisis, etc.

Justin Sales: Dr. Carl Eriksson gave a great recap of what we are seeing. Higher volume in January. Continue to care for an unprecedented number of sick kids.

Jill Shipley: Still new to the role. Looking forward to more outreach education.

Pediatric Research | Dr. Matt Hansen, OHSU

Representing Pediatric Emergency Care Applied Research Network (PECARN). PECARN is branching into more EMS research. Currently enrolling Washington and Clackamas County patients into the PediDOSE study. This is a study where we are changing the way Midazolam is dosed for witnessed

seizures; changing from the current standard of length-based or using a proprietary guide, to age-based. Currently in the control phase where we are collecting data on current care. In the future we will be randomly assigned to switch to the new dosing scheme.

Dr. Hansen is the principal investigator for the PECARN T-REX study. It is a study for EMS treating children with severe asthma. Portland was potentially a site for this study but is no longer participating.

Doing a project now that is funded by HRSA related to Pediatric Readiness in EMS. Dr. Carl Eriksson is a co-investigator for this study. Next year, the EMSC State Partnership Program will be doing an EMS Agency Readiness Assessment. We will be using data from that assessment to evaluate how readiness in EMS is associated with patient outcomes. Working with the EIIC Subcommittee on Pediatric Readiness and have a funded grant to look at that. This is in several states including Oregon. Dr. David Lehrfeld and Peter Geissert have been working with the Oregon data side of this.

Comments/Questions:

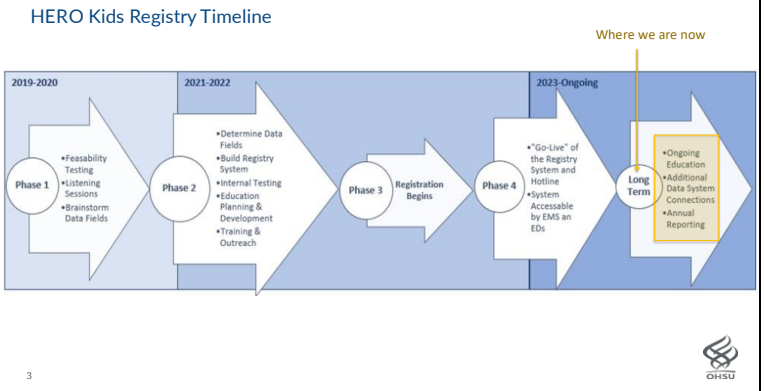
- **Amani Atallah**: Question on Midazolam. Is this for prehospital care that you are making this change and what is this going to look like? **Dr. Hansen**: Yes, this is for prehospital care. We are going to be changing the dosing from length-based dosing to age-based dosing. It is a simpler concept.
- **Tamara Bakewell**: How is this going with the family involvement piece that we worked on together? **Dr. Hansen**: PediDOSE is an exception from informed consent study. That means that you cannot usually get consent before the enrollment takes place because it is an emergency medical condition. PediDOSE is probably the first multi-center, pediatric EMS exception from informed consent study. We worked with Tamara Bakewell community consults efforts to get family feedback. The feedback was very positive. Submitted that feedback to the IRB and the IRB states whether you can go farther with the study. The outcome was very positive.

Health Emergency Ready Oregon (HERO) Kids Registry | Tamara Bakewell, Brittany Tagliaferro-Lucas, OCCYSHN

Tamara Bakewell: *Family Representative* update - In the Salem/Kaiser area there is going to be the third annual Safe and Secure Event for families. It is sponsored by many family organizations. Rachel Ford will send flyers to the committee members. Once you receive the flyers, look at the one that is specific to the EMS Providers. Everyone who comes will receive an emergency kit.

Brittany Tagliaferro-Lucas: HERO Kids

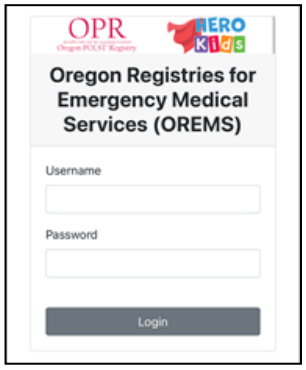
Currently in the long-term phase of operation, where we are up and running and focusing on education, reporting, and system improvements.

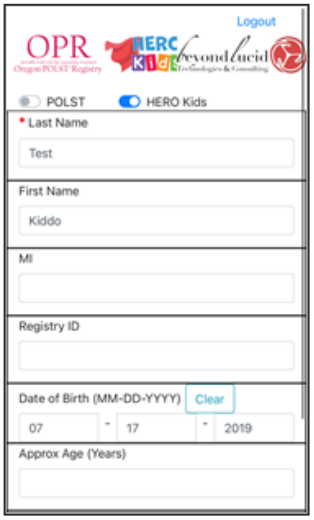


Updated data: 80 registrations across 15 counties (including frontier, rural and urban) and now including across the coast. There have been four Emergency Department Information Exchange (EDIE) notifications (Oct-Nov) and two calls to the emergency hotline. While numbers are small, there are new registrants each month.

Oregon Registries for EMS (OREMS) App:

- Launched October 2022
- Providers have direct access to the Oregon POLST Registry and HERO Kids Registry
- Providers do not need to call the hotline when using the app
- Providers can quickly and easily search both registries simultaneously





For an OREMS App account, the EMS/fire agency administrator requests a user management account. HERO Kids sends credentials to the EMS/fire agency administrator. EMS/fire agency administrator verifies, enrolls, and maintains personnel lists for their agency.

Social Media Campaign:

- Platforms: Facebook and Instagram with timeframe from October 2022 - December 2022. 175,737 impressions (views) and 1,248 link clicks.
- Targeting: Geographic targeting were people who lived in Oregon. Genders = all. Ages = 18-65+.
- Interest targeting group 1: Families (New Parents (0-12 months), Parents with preschoolers (3-5 years), Parents with early school-age children (6-8 years), Parents with preteens (9-12 years), Parents with teenagers (13-17 years), Parents with adult children (18-26 years).
- Interest targeting group 2: Professionals (Work industries: Healthcare and medical services).

State Education Plan 2023:

- Continue: social media campaign; family organization presentations; and brief stakeholder meeting presentations.
- Increase: conference displays/presentations; distribution through professional organizations (newsletters, etc.); outreach to school health, schools, and county public health agencies; outreach to primary and specialty care providers; and attendance and distribution through professional organizations.
- Scheduled conferences and events:
  - EMS: All regional and state EMS conferences, Fire Chief's Association conference
  - Emergency Department: Oregon ACEP Winter Conference
  - Families: Community events and tabling support from Oregon Family to Family Health Information Center (Autism Society of Oregon Walk, Safe and Secure Summit, etc.), youth-centered and youth transition events.
  - Stakeholders: 6th Pediatric Mental Health Update meeting, OCCYSHN Conference, Rural Health Conference

Future Development & Collaboration:

- Development FY23: Electronic Emergency Protocol Letter (form) and integration with EDIE insights; and system improvements based on user feedback.

- Collaboration with the Pediatric Pandemic Network: HERO Kids education videos; primary and specialty care provider outreach; and additional sources of funding for system improvements and staff.

Comments/Questions:

- **Dr. Christa Schulz:** Is this the number you were expecting? How is the progress going? **Brittany Tagliaferro-Lucas**: We are a little bit below target, but within the margin of error. **Tamara Bakewell**: My job is going around to talking to families, but this is a difficult task. Picked up a sense that they need more data. Some are more cautious. Really pleased that the numbers are increasing. Takes a lot to get this going. Families are reminding us that there is trauma around health care.
- **Rachel Ford**: HERO Kids was at the Oregon EMS Conference and asked providers, "What questions do you have about HERO Kids?" We found that providers were not aware of the resource. Providers are critical to the success of HERO Kids, and they were able to let us know about family events that were coming up.
  ACTION: HERO Kids request to the committee to share information about future family, EMS, hospital, healthcare provider, and public health events in their area. Email: herokids@ohsu.edu
- **Dr. Christa Schulz**: Talking about HERO Kids at the ATAB 7 meeting. The ED is talking about it and are excited about the App. Has there been any further discussion on Hospitalists getting access for specialty care plans? **Brittany Tagliaferro-Lucas**: Limiting to ED and EMS providers, but it is something that we can bring back to our leadership team and discuss.
- **Matt Philbrick**: Is there a way to track or see the number of downloads of the App? Or Users created? **Brittany Tagliaferro-Lucas**: Yes, Dr. Abby Dotson at the Oregon POLST Registry will be managing enrollments and can get that data.
- Hero Kids Media Links: KGW & KOIN

EMSC Advisory Committee Bylaws | Chairperson

Purpose: Updated language.
Membership: Updated language; changed EMS Training Director to EMS Training Officer; added OHA core member, Oregon EMS & Trauma Systems Program Manager. Question to the committee: Do we need to add other areas of expertise?
Meetings: Updated language.
Subcommittees & Workgroups: This section was reworked. Added Workgroups, added definitions of subcommittees and workgroups, and updated language.

Committee discussed next steps. After DOJ review, the Bylaws will be brought back to the committee for review and request for motion to approve.

Comments/Questions:

- **Tamara Bakewell**: Request to capitalize *Family Representative*.
- **Dana Selover**: Indicated that Bylaws need to be reviewed by DOJ.

EMSC Program | Rachel Ford

Pediatric Readiness Program

The November education session, Collaborative Problem Solving: Rethinking Crisis Responses, is available at www.pedsreadyprogram.org. There are over 35 recorded education sessions available. The next session will be February 16, 2023 at 1200-1300, *Superheroes of the Small Stuff: An Evidence-Based Approach to Common Pediatric Illnesses in Emergency or Urgent Care Settings*. The 2023 education sessions will be moved to the lunch hour (1200-1300) to see if it will allow more providers to participate. CME for physicians and CE for nurses and other medical professionals is available for live and recorded sessions. The Pediatric Readiness Program will also continue to share monthly grand rounds opportunities from Doernbecher, Randall, Oregon Providence, and Sacred Heart Children's.

National Pediatric Readiness Program Outreach

One of the program goals is to complete National Pediatric Readiness Program outreach by February 2023. Rachel will connect with hospitals that reported having Nurse and/or Physician Pediatric Emergency Care Coordinators and will also inquire with the remaining hospitals to establish a Pediatric Champion contact.

Health Resources and Services Administration (HRSA)

Rachel submitted the EMSC State Partnership Grant Application on October 28th. It took approximately 67 hours to complete. If the application is approved, the Oregon EMSC Program will receive 4-years of funding at $205,000 per year. The grant will cover 82% of the EMSC program personnel and activities, and EMSC general funds will cover the remaining 18%. Letters of support were received from the Oregon Center for Children and Youth with Special Health Needs/Family-to-Family Health Information Center, Oregon Office of Rural Health, and Oregon Health Authority's Health Security, Preparedness and Response. This is the second 4-year grant that Rachel has submitted. Rachel also provided grant technical assistance to Alaska and Pennsylvania.

Trauma Standards

Rule Advisory Committee meetings for Exhibit 2 (Guidelines for Field Triage of Injured Patients) and Exhibit 3 (Oregon Hospital Trauma Team Activation Criteria) were held on October 4th and November 1st. Madeleine Parmley and Rachel Ford also presented at the October State EMS Committee and State Trauma Advisory Board meetings. The OHA staff debriefed and are determining next steps including scheduling a third RAC meeting.

PEDS-03 Project & NEMSQA Measure Priorities | Rachel Ford, Chairperson, Peter Geissert, OHA EMS & Trauma Systems Program

Rachel Ford:

PEDS-03 measure is documentation of pediatric patents' weights in kilograms. The committee took this on as a project. In March, July and November 2022, letters that included individual agency and statewide EMS data were sent to all EMS transport agencies. The November letters included data from reporting period (7/1/22-9/30/22).

Overall, agencies have been quick to respond with patient weight documentation training and that has been seen in the individual agency and statewide EMS data. There has been a big shift in pediatric weight documentation from Q3 2021 to Q3 2022. At the October 2022 EMSC Advisory Committee, it was reported that the agency-level data was showing increases in patient weight documentation and that there was a significant change. June 2022 was at 87.6% and September 2022 was up to 94.1% documentation of weight. There are many agencies now documenting at high 90s and 99 to 100%. This

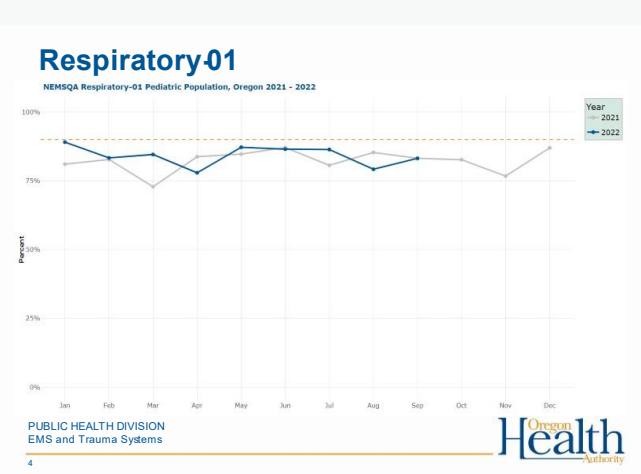
is an astonishing result! There has also been an increase in documentation of patient weight for all patients.

Rachel will conduct outreach to agencies that have opportunities for improvement, with the hopes of supporting agency-level efforts. Patient weight documentation will continue to be monitored and the committee will determine next steps. For the 2023-27 EMSC State Partnership grant cycle, one of the performance measures is developing and implementing a prehospital pediatric readiness program. Participation requirements for the program may include meeting or exceeding the goals for all pediatric NEMSQA measures. Over the next few years, Rachel will be talking more about the prehospital pediatric readiness program elements.

Matt Philbrick:
Bringing the NEMSQA measures discussion back to the committee for discussion. Will look at what the impact of expanding EMSC efforts, with focus on other pediatric NEMSQA performance measures.

Peter Geissert:
Performance Metrics, looking forward to the next metrics project(s) that would be good to walk through with the committee. We have two additional metrics that should be ready by the end of the month that also have pediatric denominators.

Respiratory-01: NEMSQA Respiratory-01, percentage of EMS responses originating from a 911 request for patients with primary or secondary impression of respiratory distress who had a respiratory assessment. The goal for this metric is for 90% of patients experiencing respiratory distress to have a documented respiratory assessment.

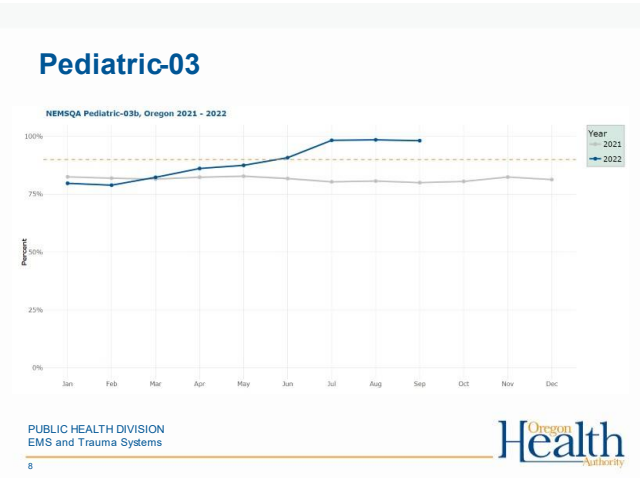


As of third quarter, Respiratory-01 was hovering around the 80-85% range. The numerator is whether they have SpO2 and respiratory rate documented. Often the patient has one or both documented, which needs to be part of the discussion if this metric is chosen.

Comments/Questions:
- **Dr. Christa Schulz**: It would be interesting to know how many of the respiratory calls were asthma where it was not a part of the diagnosis.
- **Dr. David Lehrfeld**: You could link EMS data to ED data but that would be a big grant funded project.

Asthma-01: NEMSQA Asthma-01, percentage of EMS responses originating from a 911 request for patients with a diagnosis of asthma who had an aerosolized beta agonist administered. The goal for this metric is for 90% of patients treated by EMS for asthma to receive an aerosolized beta agonist.

Asthma-01 is calculated quarterly. Number of patients too few to calculate monthly. Current performance at 75%.



Pediatric-03: NEMSQA Pediatric-03, percentage of EMS responses originating from a 911 request for patients less than 18 years of age who received a weight-based medication and had a documented weight in kilograms or length-based weight estimate documented during the EMS response.

This is the great success story. The goal for this metric is for 90% of pediatric patients receiving a weight-based medication to have a documented weight in kilograms in their ePCR. June 2022 was at 87.6% and September 2022 was up to 94.1% documentation of weight. There are many agencies now documenting at high 90s or 100%.

Safety-01: NEMSQA Safety-01, percentage of EMS responses originating from a 911 request in which lights and sirens were not used during response. The goal for this metric is for 70% of EMS 911 responses to scene to be completed without use of lights and sirens.

This goal is based on expert recommendations developed by the NEMSQA Lights and Siren Collaborative national performance improvement project. Safety-01 is currently under 25%.

Safety-02: NEMSQA Safety-02, percentage of EMS transports originating from a 911 request during which lights and sirens were not used during patient transport. The goal for this metric is for 95% of EMS transports from scene to be completed without use of lights and sirens.

This goal is based on expert recommendations developed by the NEMSQA Lights and Siren Collaborative national performance improvement project. Safety-02 is currently hovering around 80%.

Hypoglycemia-01: The is one of the new metrics. This should be fully implemented by the end of January. Hypoglycemia-01, percentage of EMS responses originating from a 911 request for patients with symptomatic hypoglycemia who received treatment to correct their hypoglycemia. This metric has three denominators. It excludes patients that are less than 24 hours of age. It includes administration of food, oral glucose, dextrose, or glucagon. The goal to be determined.

Comments/Questions:

- **Amani Atallah**: You mentioned food. Does the narrative include help with food? Or is there a dropdown to select - help patient with food? **Peter Geissert**: When looking at the data there is not a code for food. This may be a little difficult. Highly probable that people are doing it and not documenting it or documenting it in the narrative.

Seizure-01: This is one of the new metrics. Seizure-01, percentage of EMS responses originating from a 911 request for patients with status epilepticus who received benzodiazepine aimed at terminating their status seizure during the EMS response. There are no exclusions. The medications included are diazepam, ripazepam, and midazolam. The goal to be determined.

Matt Philbrick:
What can we impact as a committee? What action items can we do to facilitate an impact and is the impact reasonable? For discussion, let's use Safety-01 and Safety-02 as an example: At the Public Safety Answering Point (PSAP) level, we may not be able to have any measurable impact on how calls are run, how calls are dispatched, whether they use lights and sirens during response. Matt gave a

summary of information outcomes that differ in rural and frontier demographic populations. Is safety the best place to start? Do we have enough volume, enough calls, enough of a denominator to have a measurable impact?
Peter Geissert:
There is a possibility if these are implemented nationally, we may need to pare down to urban and rural, otherwise we lose the ability to benchmark against national numbers.

Comments/Questions:

- **Dr. Dana Selover**: Agree about Safety 01 and 02. This has been researched in the past. This is bigger than Oregon and Oregon EMSC, and we can table this one.

After discussion, the decision was to have Rachel Ford, Peter Geissert, Matt Philbrick, Dr. Christa Schulz, and Dr. David Lehrfeld connect before the April committee meeting and develop a proposal or plan to bring to the committee. Will start with Respiratory-01 and Asthma-01. Dr. Lehrfeld will review Asthma-01 charts to see how documented. Peter Geissert will pull agency-level Respiratory-01 data. The group will report back to the committee at April meeting.

ACTION: Rachel Ford, Peter Geissert, Matt Philbrick, Dr. Christa Schulz, and Dr. David Lehrfeld connect before the April committee meeting and develop a proposal or plan to bring to the committee.
ACTION: Dr. Lehrfeld will review Asthma-01 charts to see how documented.
ACTION: Peter Geissert will pull agency-level Respiratory-01 data.

Suicide Prevention Project | Peter Geissert

Project was Initiated on behalf of EMSC Advisory Committee, with interest in focusing on supporting pediatric suicide prevention efforts.

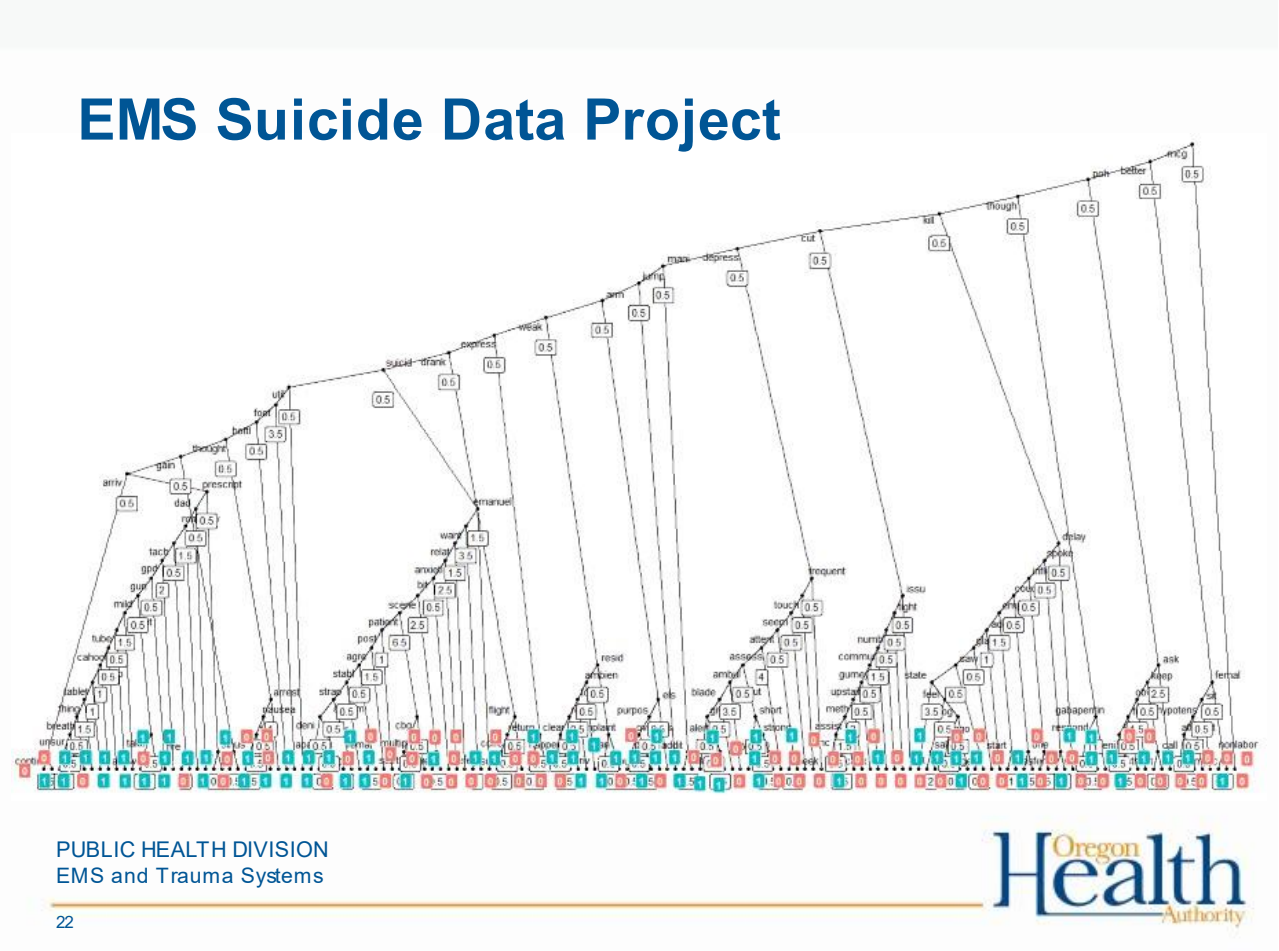
Data project developed in collaboration with Injury & Violence Prevention Program. There was no vetted case definition for NEMSIS data to identify suicide related calls. There was no truth data set. It was impossible to quantify how accurate the definition was in identifying cases.

The project group reviewed records and coded whether a suicide attempt or not. Defined suicide attempts based on codes: Primary Impression/Secondary Impression/Primary Symptom/Other Associated Symptoms (T14.91 Suicide Attempt, R45.851 Suicidal Ideation). Cause of Injury: Intentional self-harm and suicide attempt.

The codes only model test data accuracy statistics: Accuracy 67.1%, Sensitivity 98.9%, and Specificity 56.9%.

Defining suicide attempts based on narrative: Parsing the narrative using a feature selection process of identifying key words and combinations of key words strongly associated with a category.

Random Forest Model: Decision Trees is a form of classifier or decision-making tool. It has a branching structure that is easy to read and interpret. It handles interaction effects in the data. It is sensitive to small changes in the training data. The solution to this is a form of “ensemble learning” and includes: repeated random selection of rows from your data, estimate many random decisions tree models (the forest), and aggregate the results of the trees.



The Random Forest Model test data accuracy statistics: Accuracy 67.1%, Sensitivity 42.3%, and Specificity 99.4%.

Random Forest Model + codes only model test data accuracy statistics: Accuracy 84.8%, Sensitivity 96.4%, and Specificity: 69.8%. Strengths: There is a lot of information in codes and narratives. In combination, both sensitivity and specificity improve. Weaknesses: Codes may indicate history, or non-suicide self-harm. Narratives are complex with a lot of words. The Random Forest Model is currently losing the information contained in sentence structure.

In conclusion, simple definitions may be insufficient. Parsing sentences may be required to achieve a more accurate definition. Further reduction of the number of words used as input to the model is required.

Comments/Questions:

- **Matt Philbrick**: Is the reduction of the number of words coming from the Forrest Model or from the narratives themselves? Would you have a better outcome if the narratives were shorter? **Peter Geissert**: There is a lot to this. A S.O.A.P. structure is easier to parse, and we can dramatically decrease the complexity of the narrative and we have more context depending on the portion of the narrative. That is not uniformly used across the state. There are ways to go through and sort and identify. Some of it must be hand-sorted.
- **Dr. Carl Eriksson**: Has any work has been done by the national NEMSIS group? It strikes me that diving into the unstructured narrative is incredibly complex. We have a multi-year grant with experts in natural language processing. This is a huge challenge. Thank you for your work on this. **Peter Geissert**: I would be interested in hearing more about what you are uncovering as your project goes forward.
- **Matt Philbrick**: What should the committee expect for next steps? **Peter Geissert**: Have a couple next steps considered: 1) With respect to the codes, breaking out into multiple indicators (primary impression, secondary impressions, primary symptom, secondary symptoms) to see if the position of the code influences the probability that it is associated with a true case. Similarly breaking out different types of cause of injury to see if it improves performance.; and 2) Currently working on definition, instead of taking the whole narrative and chopping it up into words, writing a script that breaks the narrative up in sentences. Peter did this for another project and thinks it can work with this project as well.
  ACTION: Peter will present update to the April or July 2023 committee meeting.

State EMS and Trauma Systems Program | Dr. David Lehrfeld, Dr. Dana Selover

EMS & Trauma Systems Program: Amani Atallah is the new EMS and Trauma Systems Program Manager. We are thrilled!

Heath System Surge Response: Has required a lot of Dana's and David's attention.

Health Security, Preparedness & Response (HSPR):

- Respiratory Virus Surge: Health system has the staffing burden issues at the same time as they have capacity issues. There is stress along the system and beyond, with discharge delays and placement challenges.
- Crisis Standards of Care were declared in the hospitals, mostly to manage their nurse staffing plans
- EMS Impact: A ripple effect which is a huge burden on EMS. Fielding questions from EMS, and conversations with EMS section of Fire Chief's Association and Ambulance Association.

Legislation: New legislature and new people in the many positions, including a new Oregon Health Authority Director. We are handling response, requests, legislative inquiries, bills, and dropped bills review.

- Bills: Behavior Health, workforce (licensing, requirement around associates degree for paramedics, licensing compact, how do license providers come into Oregon with an existing license, etc.), education for incentives, apprenticeship models, safety, state government, mobile health care, brain injury, etc.
- In April, will have a list of the bills for the committee. Will be included in the quarterly report.
- Keeping up to date on patient movement. Rachel is looped in on this as well.

Public Comments | Chairperson
No public comments.

Next meeting is in-person and scheduled for April 13, 2023.
Location: 800 NE Oregon Street, Room 177 Portland, OR 97232

Meeting Adjourned: 11:47am