Master of Public Health

Integrative Learning Experience Report

HEALTHY RELATIONSHIP EDUCATION AND EMERGENCY PREPAREDNESS FOR EARTHQUAKES (CASCADIA SUBDUCTION ZONE)

by

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submitted in partial fulfillment of the requirements for the degree

MASTER OF PUBLIC HEALTH

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Summary/Abstract

This report summarizes my in-person and hybrid field experiences during the period from June 2025 through November 2025, which included two Applied Practice Experiences (APE): one with Claire's Community, a nonprofit focused on promoting healthy relationship education, and another with the *Frontier* Field Trip program, a multidisciplinary program that integrates public health and field-based learning. Through these experiences and my coursework, I synthesized and applied five Master of Public Health competencies by designing, implementing, and communicating population-based interventions that engaged diverse audiences and built community partnerships.

Through my work with Claire's Community, I identified key stakeholders—including the Executive Director, local library staff, and community partners—to design and implement community-based interventions that promoted early childhood social-emotional health. I created the Parent/Caregiver Resource Brochure, complementary blog posts, and the storytelling event as accessible tools for caregivers, combining evidence-based strategies with plain language and culturally sensitive designs. By adapting complex health information into both print and digital formats, I strengthened communication across literacy levels and promoted inclusivity. This process also allowed me to advocate for public health and social policies that emphasized caregiver education and child safety while fostering meaningful partnerships that supported community engagement and program sustainability.

Similarly, through my *Frontier* Field Trip experience, I collaborated with program co-directors Drs. Justin Kastner and Jason Ackleson to create an interactive emergency and disaster preparedness program centered on the Cascadia Subduction Zone (CSZ). I designed educational material that presented emergency management concepts and preparedness strategies in an approachable, audience-specific format. By translating technical content into plain language and culturally relevant visuals, I ensured accessibility and encouraged active participation from non-academic audiences. This project further demonstrated my ability to design and deliver public health content tailored to community needs while integrating competencies in health communication, program design, and stakeholder collaboration to enhance public awareness, safety,

and resilience. A key aspect of working with Dr. Kastner was authoring a “script” that was used to facilitate learning through a hypothetical, futuristic CSZ event.

Across both APE experiences and through my diverse coursework, I consistently drew upon and integrated multiple competencies—designing interventions (Competency 9), building coalitions (13), advocating for public health (14), adapting communication for diverse audiences (18), and delivering content effectively (19). Together, these experiences strengthened my ability to synthesize knowledge, engage stakeholders, and apply public health principles in ways that advance health equity, community empowerment, and long-term behavioral change.

Competencies for the Food Safety and Biosecurity emphasis area were achieved through coursework and are as follows:

- Food safety and biosecurity.
- Threats to the food system.
- Food safety laws and regulations.
- Food safety policy and the global food system.
- Multidisciplinary leadership.

Subject Keywords: Healthy relationships, emergency preparedness, multidisciplinary, audience-appropriate communication, diverse populations, health literacy

Table of Contents

Chapter 1: Literary Review

Background - Foundations and Implications of Healthy Relationships in Early Childhood

Healthy relationships are fundamental to the emotional, cognitive, and social development of children. Early childhood is a critical period in which secure attachments, responsive caregiving, and ethical relational practices lay the groundwork for long-term well-being. A growing body of research emphasizes that children thrive in environments where relationships are not only nurturing but also guided by mutual respect and care ethics. Exposure to adverse experiences during this period—commonly referred to as Adverse Childhood Experiences (ACEs)—can have profound and lasting effects on neurological, immune, and endocrine system development, increasing the risk of chronic disease, mental illness, and high-risk behaviors later in life (Boullier & Blair, 2018). Culture, race, and socioeconomic context can influence early relationship building and access to supportive resources, shaping both caregiver capacity and child outcomes (Frosch et al., 2019). By applying trauma-informed care principles, addressing the social determinants of health, and promoting protective relationships, public health interventions can prevent ACEs, foster resilience, and support equitable opportunities for lifelong health and well-being. Building on these insights, system-level interventions emphasize the importance of providing early support for parents and caregivers.

As part of a growing body of evidence—the Healthy Child Programme in the UK, for example—underscores how structured parenting programs (such as home visits and video feedback) can significantly improve caregiver sensitivity, foster secure attachment, and enhance children's behavioral and emotional outcomes. Across studies, a consistent pattern emerges: strong relational support not only benefits individual child-caregiver relationships but also contributes to broader public health outcomes, including reductions in domestic violence, improved caregiver mental health, and decreased risk of child neglect (Axford et al., 2015). However, effectiveness is influenced by many factors such as cultural norms, family engagement, and access to resources. Research consistently shows that programs must be flexible and culturally

responsive, providing tailored support for language, family structure, values, and practical barriers to participation (Sanders et al., 2014). Without these adaptations, even evidence-based interventions may yield uneven outcomes across diverse populations. This variability highlights the need to consider community-specific contexts when implementing programs.

For example, parenting practices and expectations differ across cultures, and strategies that are effective in one community may not resonate in another (Frosch et al., 2019). Families experiencing economic hardship or limited to no access to services may face challenges in consistently participating in structured programs, which can reduce overall effectiveness/impact. This suggests that programs should be flexible and culturally responsive, as community-based participatory research offers one model for incorporating community insights into program design (Cook et al., 2023). Conflicting findings in the literature also suggest that programs not adapted to specific community contexts may show limited or inconsistent improvements in child behavior or parenting outcomes. Together, these findings highlight a clear pattern: early relational support is both developmental and a public health priority, and program success depends on culturally informed, context-sensitive implementation. While supporting families is crucial, attention must also be paid to children's own agency and autonomy.

Equally important is recognizing the autonomy and agency of children themselves, even in infancy. Young children display awareness of their bodies, preferences, and comfort levels through nonverbal cues such as gestures, resistance, or cooperation. Respecting this bodily autonomy not only affirms children's rights but also builds trust and emotional safety in caregiving relationships. This approach challenges outdated assumptions that young children are passive recipients of care and emphasizes their capacity to participate in relational dynamics when given the opportunity to be heard and respected (Alderson, 2023).

Within early education settings, the quality of relationships between educators and families also plays a vital role in supporting child development. Research from Early Head Start programs shows that strong reciprocal relationships between providers and families can lead to measurable improvements in children's language development, social competence, and behavior. These relationships also contribute to reduced

parenting stress and improved home environments. Educators who engage in reflective, relationship-centered practices help create an “ethic of care” that supports not only children but the entire caregiving system, especially in communities facing heightened stress or limited resources (Cook et al., 2023). Implementation challenges and resource limitations highlight the need for thoughtful program design and support for educators and families in order to achieve consistent outcomes. Educators may face high caseloads, limited training, or insufficient access to materials, which can reduce effectiveness of relationship-centered practices. Families may encounter barriers such as scheduling conflicts, transportation difficulties, or competing work and/or caregiving demands, which can limit consistent participation in programs. Addressing these challenges requires comprehensive planning, including professional development for educators, flexible program delivery methods, and additional supports that help families engage fully.

Considering these dynamics together, these foundational perspectives show that healthy relationships in early childhood are shaped by a combination of sensitive caregiving, respect for child autonomy, and strong support systems for families. Ensuring emotionally rich, ethically grounded, and culturally responsive environments enables children to develop the relational skills and emotional security they need in order to thrive throughout their lives. In the literature, “thriving: refers to the achievement of positive developmental outcomes, such as secure attachment, emotional regulation, social competence, and cognitive readiness for school, as well as long-term indicators of well-being, including lower rates of anxiety, depression, and chronic disease (Frosch et al., 2019; Cook et al., 2023). Children who experience stable, nurturing relationships early in life are more likely to demonstrate resilience, empathy, and effective coping strategies, all of which contribute to sustained mental and physical health into adolescence and adulthood.

Background: Emergency Preparedness and the Cascadia Megathrust Threat Earthquake Event

The Pacific Northwest rests along a volatile tectonic boundary—home to the Cascadia Subduction Zone (CSZ), an undersea fault capable of producing one of the most powerful seismic events on Earth. Despite ever-growing scientific understanding, the region remains underprepared for the likelihood of a catastrophic rupture. The most recent megathrust earthquake, which occurred in 1700, predated written records in North America but was confirmed through geological evidence and trans-Pacific tsunami documentation. This historical “blind spot” continues to impair public risk perception, infrastructure readiness, and regional health preparedness today.

One central challenge lies in the gap between perceived and actual seismic risk. Although public awareness campaigns have increased in recent years, many residents continue to underestimate the immediacy or severity of the threat. This disconnect—described in contemporary behavioral psychology as the “availability heuristic gap”—is attributed to the absence of recent lived experience with such disasters (Watson & Cardace, 2021). Valamontes (2025) highlights how the geological and ecological scars of the 1700 CSZ event remain largely unaddressed in contemporary land-use policy, emergency infrastructure design, and household preparedness planning. Public health literature further shows that these preparedness disparities are unequally distributed: low-income, Indigenous, and rural coastal populations are less likely to have access to emergency information, evacuation routes, and healthcare continuity plans during seismic events (Valamontes, 2025).

Valamontes (2025) offers an interdisciplinary framework that synthesizes geophysics, paleo-seismology, and Indigenous oral history to reconstruct the 1700 event. Tree-ring data, tsunami sediment records, and documentation of the “orphan tsunami” that struck Japan align closely with oral histories from Pacific Northwest tribal communities-stories that recount “the night the seas swallowed the land.” The study calls for a plural epistemological approach, advocating that Indigenous knowledge systems be recognized as valid empirical contributions to seismic risk science and emergency planning. Integrating these accounts not only enriches the scientific record

but also elevates Indigenous communities as essential partners in resilience and memory retention.

Public infrastructure remains a key vulnerability in the region's preparedness landscape. Seismic modeling anticipates widespread damage among transportation networks such as Interstate 5, coastal bridges, energy grids, and healthcare facilities in the event of a full-margin rupture (Valamontes, 2025). There is an urgent need for retrofitting critical lifelines, elevating evacuation routes, and designing tsunami-resilient structures. Ecological assessments further reveal that ghost forests and disrupted salt marshes-remnants of past seismic events-indicate the potential for prolonged environmental degradation, reinforcing the need for infrastructure that is both seismically durable and ecologically sensitive.

Policy efforts in the Pacific Northwest have shown progress. States such as Oregon and Washington have established *Cascadia Playbook* preparedness plans and invested in *ShakeAlert,* a regional early warning system, yet implementation gaps persist (Oregon Office of Emergency Management, 2022). Critical infrastructure retrofitting remains incomplete, and rural communities often lack the fiscal capacity to implement resilience upgrades. A 2021 Government Accountability Office (GAO) report found that less than half of essential coastal hospitals in the region met seismic safety benchmarks, posing major threats to continuity of care, emergency triage, and mental health services in the aftermath of a major quake (GAO, 2021). Public health preparedness must extend beyond structural engineering; it requires a restructuring and bolstering of health systems, supply chain resilience, and trauma-informed community networks. Together these improvements may address the social and psychological impacts of a large-scale disaster. The National Response Framework emphasizes a comprehensive approach, guiding communities to prevent risks where possible, prepare for emergencies through planning and capacity building, respond to incidents with coordinated action, and recover by restoring services and supporting long-term community well-being (Environmental Protection Agency, 2025). Applying these principles can strengthen resilience, improve continuity of care, and better support vulnerable populations following major seismic events.

The threat of a future CSZ earthquake is further compounded by accelerating climate change. Rising sea levels, increased coastal erosion, and intensified storm surges all heighten the potential reach and impact of tsunamis, while also amplifying displacement and long-term health inequities. Lessons from the March 11, 2011, Tohoku earthquake in Japan illustrate the magnitude of these risks: the 9.0 megathrust earthquake generated a tsunami that affected a 2,000 km stretch of coastline, inundating over 400km^2 of land (Mori et al., 2011; USGS, 2011). As of August 2012, official reports indicated 17,500 fatalities, 2,848 missing persons, and over 6,100 injured (World Bank, 2012). In addition to immediate mortality and injury, the disaster caused extensive infrastructure damage—including 10.4 trillion Japanese Yen (JPY) in buildings, 1.3 trillion JPY in public utilities, and 2.2 trillion JPY in social infrastructure—highlighting cascading health risks from disrupted water, sanitation, and medical services. Integrating seismic and climate forecasting into emergency planning can help anticipate crises, such as contaminated water sources, respiratory illness from post-fire events, and mental health issues linked to long-term displacement. As such, preparedness strategies must evolve to be climate-contingent, integrating environmental forecasting into seismic risk models. Valamontes (2025) also identifies the need for trauma-informed systems within emergency response frameworks, noting that long-term resilience will depend not only on physical preparedness but also on addressing the psychological dimensions of disaster recovery.

In light of these findings, it is evident that traditional approaches to hazard mitigation are no longer sufficient. A forward-looking preparedness strategy for Cascadia must embrace interdisciplinary collaboration-drawing on seismology, Indigenous knowledge, behavioral science, climate adaptation, and public health equity. Quantitative data from events like the Tohoku earthquake underscore the scale of potential impact: thousands of lives risk, thousands more hospitalized or missing, and trillions in economic loss that indirectly influence health outcomes. This interdisciplinary approach reframes preparedness not only as an engineering challenge but as a public health imperative, one that will safeguard both the physical and the psychological well-being of any affected community. The region stands at a pivotal juncture: it can either

repeat the past by ignoring these converging risks or shape a future grounded in science, memory, and collective resilience.

The *Frontier* Field Trip provides an immersive, applied learning experience into public health crisis management, blending history, science, and critical thinking to enhance students' understanding of real-world public health challenges. The 42nd iteration of the trip, held in November 2024, recreated the 1993 Milwaukee cryptosporidiosis outbreak, the largest waterborne disease outbreak in U.S. history, allowing participants to assume roles as community members, hospital workers, public health officials, and government representatives (Coy, 2025). Students engaged in simulated epidemiological investigations, analyzed water contamination data, crafted press conferences, and addressed public concerns. All of these elements facilitated interdisciplinary collaboration, problem-solving, and communication skills. This hands-on experiential approach allows participants to synthesize knowledge from multiple public health domains—epidemiology, environmental health, and health communication—while reflecting on societal, political, and technological contexts that shape outbreak response. By confronting complex public health scenarios in a structured learning environment, the *Frontier* Field Trip model exemplifies the value of applied, experiential education in preparing public health professionals to respond effectively to real-world crises.

The author's Applied Practice Experience demonstrated involvement in both topic areas through a range of programs, encompassing both in-person and hybrid formats. These included Healthy Relationship education at public tabling events, resource creation (take home toolkits), and administrative responsibilities in accordance with a non-profit organization (Claire's Community). I also participated in assorted opportunities that dealt with the creation of emergency preparedness materials (Cascadia Subduction Zone presentation) and led a workshop in the creation of all hazard's emergency preparedness personal/home/work kit with assistance from Dr. Justin Kastner and the *Frontier* Field Trip program.

Chapter 2: Learning Objectives and Project Description

During the Summer of 2025 through the Fall of 2025, I completed a hybrid Applied Practice Experience. The combination of programs and in-person experiences I attended during field experience included events for Claire's Community, with Shannon VanLandingham, the executive director of the #Bemorelikeclaire initiative. Shannon VanLandingham has extensive knowledge and experience in the non-profit organization world and is the mother of Claire VanLandingham in which the organization is dedicated to. Through this experience, I was engaged in program planning, health education, and community outreach, applying MPH competencies in communication, leadership, and community engagement to analyze and disseminate educational materials for parents and caregivers. These activities enhanced skills in cultural competence, systems thinking, and designing population-based interventions that are sensitive to family and community context.

I was also able to travel to Council Grove, Kansas, with Dr. Justin Kastner, a Graduate professor and co-director of the *Frontier* Field Trip program, to participate in the Fall 2025 *Frontier* Field Trip 46. Dr. Kastner is an expert in Food Safety and Biosecurity and has a plethora of knowledge and experience organizing and facilitating graduate-level programs centered around public health issues. This experience allowed me to create, evaluate, analyze, and apply skills in interdisciplinary collaboration, translating complex scientific content for non-academic audiences, and applying principles of public health preparedness, all of which align with MPH competencies in communication, leadership, and program design.

2.1 Learning Objectives

1. To learn more about the importance of early education of healthy relationships, boundaries/consent, emotional development, and recognizing signs of abuse.
2. To gain a better understanding and first-hand experience in how a non-profit organization functions.

3. To prepare and give presentations to diverse audiences on topics ranging from healthy relationships to emergency preparedness specifically for the Cascadia Subduction Zone.

2.2 Field Experience Activities

1. I attended multiple events including ChildCareAware check-ins, Lawrence Pride, Give Back Bash, and Lawrence Public Library Storytelling.
2. I worked with field experiences in creating, presenting, and teaching of materials related to healthy relationships, recognizing signs of abuse, and consent tailored for audiences with 0-5-year-olds.
3. I created a printed brochure and blog posts on Claire's Community website specifically addressing the 0-5 age group which addressed Adverse Childhood Experiences (ACEs), emotional development, and parent/caregiver relationships.
4. I built a presentation that discussed the Cascadia Subduction Zone, a megathrust earthquake event affecting the Pacific Northwest of the continental United States.
5. I co-led a program with Dr. Kastner for the 46th *Frontier* Field Trip held in Council Grove, Kansas, where members attending were able to learn about the Cascadia event and learn about emergency management practices.

The accompanying Applied Practice Experience (APE) report specifies the various products developed throughout this field experience. These products include the following:

1. Portfolio product 1: Parent/Caregiver printed resource brochure featuring material tailored for the 0-5 age group.
2. Portfolio product 2: A series of Blog Posts on Claire's Community website that included resources and information dedicated to the 0-5 age group which addressed healthy relationships, ACEs, recognizing signs of abuse, understanding verbal and non-verbal communication, boundaries, and consent.

3. Portfolio product 3: A collaborative event with the Lawrence Public Library and local storytellers with parents/caregivers of 0-5-year-olds.
4. Portfolio product 4: A presentation/program of the Cascadia Subduction Zone.

These four products appear in the appendix to this Integrated Learning Experience (ILE) report.

Chapter 3: Reflection, Analysis, and Key Observations

The online and in-person field experiences created unique learning opportunities; alongside these experiences it has been my pleasure to be an MPH student since Spring of 2024, participating in K-State's diverse courses. These experiences involved structured engagement with community programs, observation of program implementation, and direct interaction with participants, allowing me to apply theoretical knowledge in real-world settings. In addition, I engaged in reflective practice, systematically documenting observations, challenges, and insights throughout each field placement. Regular meetings with co-major professors (Dr. Kincaid and Dr. Kastner) provided ongoing guidance, feedback, and mentorship, ensuring that the field experiences aligned with learning objectives and MPH competencies. These methods collectively supported my professional growth, enhanced understanding of program evaluation, and strengthened skills in community engagement and data collection.

Portfolio Product 1: Parent/Caregiver Brochure

Background

This brochure was created as a printed resource for parents and caregivers of children aged 0-5, focusing on the early development of healthy relationships, emotional expression, and personal boundaries. Developed in partnership with Claire's Community, the material emphasizes building trust, emotional security, and bodily autonomy from an early age. It provides practical, evidence-based guidance on creating nurturing routines, modeling respectful behavior, and fostering social-emotional skills. The brochure serves as an accessible, visually engaging tool to support families in promoting safe and healthy development during childhood.

Experiential Learning Gained Developing This Product

Developing this brochure provides valuable experiential learning in translating public health concepts into accessible, age-appropriate educational material. I learned

to tailor content for caregiver literacy and developmental appropriateness, ensuring cultural sensitivity and clarity. Collaborating with a community-based non-profit enhanced my skills in stakeholder engagement and community-centered resource development. This hands-on process deepened my understanding of early childhood development and the importance of clear, compassionate communication in public health outreach.

Portfolio Product 2: Series of Blog Posts on Claire's Community Website

Background

This web-based resource was developed as part of a series of Blog Posts on the Claire's Community website, specifically dedicated to supporting parents/caregivers with children aged 0-5. The content supports parents and caregivers in building safe, loving, and emotionally healthy environments during a child's most formative years. Topics covered include the impact of adult relationships on young children, understanding and preventing abuse and neglect, recognizing Adverse Childhood Experiences (ACEs), and fostering respectful communication through verbal and non-verbal cues. The page also includes practical strategies for conflict resolution, emotional modeling, and accessing community support. A curated list of books and podcasts provides caregivers with trusted tools to guide conversations about feelings, boundaries and consent. This resource is designed to be clear, compassionate, and developmentally appropriate, equipping families with the knowledge to break harmful cycles and support children in growing up safe, loved, and resilient.

Experiential Learning Gained Developing This Product

Creating this online content provides valuable experience in translating complex trauma-informed and public health concepts into accessible, culturally sensitive, and age-appropriate language. Collaborating with the team, I tailored messaging for digital audiences while maintaining clarity, empathy, and developmental relevance for parents and caregivers of young children. Collaborating with Claire's Community allowed me to deepen my skills in inclusive communication and community engagement, especially in

the context of early childhood health and safety. I also gained hands-on experience curating evidence-based resources, selecting multimedia tools (like podcasts and children's books), and reinforcing key messages around relationship-building and ACEs prevention. This project expanded my ability to communicate public health information through online platforms in ways that are both meaningful and actionable.

Portfolio Product 3: Parent/Caregiver Listening and Storytelling Event with Lawrence Public Library

Background

This event was developed in partnership with the Lawrence Public Library to provide a welcoming space for parents and caregivers to openly share their experiences, concerns, and questions related to raising children ages 0-5. In addition to the facilitated discussion, the program featured two head children's librarian storytellers who read carefully selected children's books connected to the events and core themes, including healthy relationship modeling, early childhood emotional development, and boundaries and consent. These story sessions not only engaged children who attended but also gave parents and caregivers practical examples of how to use books as tools for introducing sensitive topics in age-appropriate ways. Designed as a two-way conversation, the event emphasized listening to lived experiences of parents and caregivers while offering accessible, trauma-informed guidance rooted in Claire's Community's core messaging. Participants were also introduced to practical strategies for conflict resolution, self-care, and community support. The event included resources from Claire's Community, the library's parenting and children's collection, and the featured storybooks. This program helped strengthen trust between families and community organizations while promoting shared learning and support in a safe, inclusive environment.

Experiential Learning Gained Developing This Product

Facilitating this event gave me hands-on experience in community engagement and responsive programing. By creating a space that prioritized parent/caregiver voices

while gently guiding discussions around sensitive public health topics like abuse prevention and ACEs. Listening actively to participants helped refine my understanding of the real-world challenges families face and the importance of tailored public health communication with empathy and flexibility. Incorporating storytelling highlighted the power of children's literature as a bridge for conversation between parents/caregivers and children, and it demonstrated how creative, accessible tools can enhance public health programming. Coordinating with the library and storyteller also enhanced my skills in cross-sector collaboration and event planning, including outreach, material preparation, and follow-up support. Another important part of this process was completing Institutional Review Board (IRB) training and preparing informed consent forms for participants. This step ensured the project met ethical standards for protecting participants' rights and confidentiality. While the process was long and time-consuming, it helped me understand the rigor and responsibility behind conducting community-based public health projects. Engaging with these requirements strengthened my appreciation for ethical research practices and reinforced the importance of building lasting trust with members of the community. This experience deepened my commitment to community-centered public health work and strengthened my ability to engage families through compassionate, culturally sensitive dialogue.

Portfolio Product 4: Cascadia Subduction Zone Emergency Preparedness Presentation/Program

Background

This educational program was developed to raise public awareness about the Cascadia Subduction Zone (CSZ)—a highly active undersea fault line capable of producing catastrophic megathrust earthquakes and tsunamis in the Pacific Northwest of the United States. Despite mounting scientific evidence, the region remains critically underprepared. This program presentation featured prominently in the 46th *Frontier* Field Trip, which I co-lead with Dr. Kastner. This experiential learning overnight activity provided participants with accessible, research-informed content covering the geological history of the CSZ, including the 1700 earthquake confirmed by tree-ring data, tsunami

sediment, and Indigenous oral histories. The program also addressed modern infrastructure vulnerabilities, emergency response limitations, and the psychological impacts of large-scale disasters. Using insights from interdisciplinary sources—including geophysics, behavioral science, Indigenous knowledge systems, and climate forecasting—the program emphasized the urgency of household and community preparedness. Participants were guided through a fictional, futuristic event set in Oregon during the year 2050 where they experienced a Cascadia Subduction Zone megathrust earthquake. The participants were able to experience a real-world emergency disaster and were led through numerous missions like creating emergency plans and developing personal, home, and workplace emergency kits, while also learning about retrofitting strategies, tsunami-safe design, and the importance of trauma-informed emergency response frameworks. This program was delivered in collaboration with Dr. Kastner and subject matter expert Dr. Jason Ackleson (a U.S. Department of Homeland Security policy official, and also the co-director for the *Frontier* Field Trip program).

Experiential Learning Gained Developing This Product

Creating and leading this emergency preparedness program deepened my understanding of disaster risk communication and the intersection of public health, infrastructure planning, and environmental resilience. I actively had to synthesize complex scientific and historical information into an engaging, actionable format for diverse audiences. The process of incorporating Indigenous knowledge alongside Western scientific frameworks enhanced my appreciation for varied approaches to emergency planning. Additionally, I gained valuable facilitation experience by helping participants develop all-hazards emergency preparedness kits tailored to their homes, workplaces, and communities.

I collaborated closely with Drs. Kastner and Ackleson in both the planning and preparation stages of this event, which strengthened my skills in teamwork and interdisciplinary project design. To expand my perspective on effective-community outreach, I attended a *Community Safety Talks – Personal Preparedness* session at Hale Library on the Kansas State University campus. In preparation for the *Frontier*

Field Trip event, I also created a detailed itinerary and authored the theatrical mock Cascadia event by creating characters and their dialogues. As part of the program, participants divided into groups from actual cities in the State of Oregon, and they were tasked with creating their own emergency preparedness kits. They had to consider geographic location, personal wants vs needs, and potential hazards they might face. I also prepared and curated reading excerpts from diverse sources, including Cascadia-specific background, Indigenous knowledge histories, and comparative lessons from the 2011 Japan earthquake-induced tsunami and nuclear reactor disaster.

Working in collaboration with academic mentors and grounding the program in both local and global contexts allowed me to build strong skills in program planning, interdisciplinary communications, and public engagement. This project strengthened my confidence in leading community education efforts that address urgent large-scale risks through inclusive, trauma-informed, and proactive strategies. As I embark upon a career in public health, I will take with me my memories of not only this *Frontier* Field Trip but others in which I observed the value of experiential learning for teaching public health.

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Chapter 4: Competencies

Student Attainment of MPH Foundational Competencies

I am extremely grateful for the diverse classes and coursework that Kansas State University has offered that has allowed me to not only grow and develop my academic career, but also my professional career through the following competency areas. The MPH program has 22 Public Health Foundational Competencies that are integrated throughout the required coursework for the degree. Through the completion of individual courses, working directly with Dr. Kincaid and Dr. Kastner, and participating in my field experience projects, I was able to gain a better understanding of these competencies. The APE experience aided me to further develop a select group of competencies. Below in Table 4.1, I describe and elaborate on how specific APE activities helped me to develop in these competency areas.

Table 4.1 Summary of MPH Foundational Competencies

Number and Competency		Description
9	Design a population-based policy, program, project or intervention	The Parent/Caregiver Resource Brochure and Blog posts on Claire's Community website were intentionally designed as complementary, population-level interventions that synthesized evidence-based, culturally responsive guidance to support early childhood social-emotional health through print and digital platforms.
13	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	The listening/storytelling event with the Lawrence Public Library engaged key partners, defined roles, and co-developed content to foster collaboration, shared learning, and community trust.
14	Advocate for political, social or economic policies and programs that will improve health in diverse populations	The brochure, blog posts, and listening/storytelling event promoted caregiver education, child safety, and equitable access, connecting local initiatives to national frameworks to advance systemic public health goals.
18	Select communication strategies for different audiences and sectors	Print and digital materials were tailored to audience needs, using visuals, concise language, and interactive features to communicate effectively

		across literacy levels and engagement contexts.
19	Communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy	Caregiver resources and storytelling events delivered trauma-informed guidance for families, while the CSZ program translated emergency preparedness into interactive, audience-specific visuals and scripts to ensure clarity and practical application during the 46th *Frontier* Field Trip.

Competency #9: Design a population-based policy, program, project or intervention.

Through my work with Claire's Community, I designed the Parent/Caregiver Resource Brochure and complementary blog posts as integrated population-level interventions to support families of young children. These tools synthesize evidence-based practices, culturally responsive strategies, and practical guidance into a cohesive system that promotes social-emotional health, trust, emotional security, and healthy relationships. In creating these resources, I not only applied knowledge of early childhood development but also evaluated community needs, integrated diverse content formats, and planned for sustainability and accessibility, ensuring the interventions could reach a broad audience across print and digital platforms. By strategically aligning content across multiple formats and topics—ranging from emotional development to boundaries and consent—I demonstrated how multiple competencies, including program design, stakeholder engagement, and communication strategies, can be synthesized into a single, cohesive intervention that supports families and communities. This competency was reinforced and attained through MPH 818 Social and Behavioral Bases of Public Health, which provided frameworks for designing interventions based on behavioral science and community needs.

Competency #13: Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.

The listening/storytelling event with the Lawrence Public Library illustrates how coalition-building and stakeholder engagement can be integrated with program design to enhance public health outcomes. I identified partners—including library staff, early childhood educators, and community organizations—based on their expertise and ability to engage families of young children. I then co-developed event content, defined roles, and coordinated logistics to maximize collaboration and community trust. By incorporating stakeholder engagement with intervention design, I synthesized knowledge from multiple competencies—from communication and public health advocacy to culturally responsive content creation—into a program that leveraged existing community networks while expanding reach and impact. This demonstrated a big-picture view of how partnerships can amplify interventions, reinforce messaging, and create sustainable pathways for population-level change. This skill was strengthened through MPH 720 Administration of Health Care Organizations, which emphasized organizational structures, roles, and partnership strategies in health programs.

Competency #14: Advocate for political, social, or economic policies and programs that will improve health in diverse populations

The advocacy embedded within Claire's Community projects demonstrates how local interventions can be connected to broader public health policy goals. The brochure, blog posts, and storytelling event advanced caregiver education, child safety, bodily autonomy, and equitable access to resources while connecting local programming to national frameworks, such as the One Love Foundation's approach to violence prevention. By linking program design and stakeholder collaboration to policy objectives, I harmonized knowledge across competencies to advocate for systemic change, demonstrating how interventions at the community level can influence broader social, economic, and political systems. This integrated approach ensures that my work not only supports immediate family-level outcomes but also contributes to long-term

public health impact and community empowerment. MPH 802 Environmental Health helped reinforce the importance of policy and program advocacy in diverse populations, highlighting how environmental and social factors intersect with health outcomes.

Competency #18: Select communication strategies for different audiences and sectors.

The brochure and blog posts were intentionally designed to meet diverse communication needs of families and caregivers. Print materials emphasized concise messaging, accessible language, and engaging visuals for broad distribution, while the blog posts provided more depth, interactivity, and culturally relevant content for digitally engaged caregivers. This work demonstrates integration of communication skills with program design and stakeholder engagement, showing how messages can be adapted across multiple platforms to enhance understanding, relevance, and engagement. By analyzing audience needs, applying communication principles, and creating tailored messaging, I ensured public health content was effective, accessible, and actionable, bridging the gap between complex developmental science and practical caregiving strategies. MPH 754 Introduction to Epidemiology supported this competency by emphasizing how to interpret and communicate population health data effectively to diverse audiences.

Competency #19: Communicate audience-appropriate public health content, both in writing and through oral presentation to a non-academic, non-peer audience with attention to factors such as literacy and health literacy.

Across both APEs, I translated complex scientific and developmental concepts into plain language, actionable strategies, and culturally sensitive messaging. Caregiver resources and storytelling events communicated trauma-informed guidance and early childhood developmental practices, while the CSZ program translated emergency management and preparedness content into interactive, audience-specific visuals,

scripts, and experiential learning activities. A key part of crafting audience-appropriate messages for public health education involves translating technical information into practical guidance. I did this in both the script and presentation for the 46th *Frontier* Field Trip. Drawing on the emergency preparedness literature, I integrated into the 24-hour experience practical, real-life scenarios (e.g., the creation of emergency kits) that taught the participants the essentials of emergency preparedness. This competency demonstrates synthesis across multiple modalities: written, oral, and visual communication were applied to ensure clarity, accessibility, and practical application for non-expert audiences. By connecting audience analysis, content creation, and delivery strategies, I demonstrated how multiple competencies—communication, program design, and stakeholder engagement—can be incorporated to maximize understanding, engagement, and real-world application. MPH 701 Fundamental Methods of Biostatistics reinforced my ability to summarize complex data clearly, supporting effective communication for non-academic audiences.

The author completed core MPH courses covering the competencies listed below in Table 4.2.

Table 4.2 MPH Foundational Competencies and Course Taught In

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
Evidence-based Approaches to Public Health					
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	x		x		
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	x	x	x		
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	x	x	x		
4. Interpret results of data analysis for public health research, policy or practice	x		x		
Public Health and Health Care Systems					
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings		x			

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels					x
Planning and Management to Promote Health					
7. Assess population needs, assets and capacities that affect communities' health		x		x	
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs					x
9. Design a population-based policy, program, project or intervention			x		
10. Explain basic principles and tools of budget and resource management		x	x		
11. Select methods to evaluate public health programs	x	x	x		
Policy in Public Health					
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence		x	x	x	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes		x		x	
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations		x			x
15. Evaluate policies for their impact on public health and health equity		x		x	
Leadership					
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making		x			x
17. Apply negotiation and mediation skills to address organizational or community challenges		x			
Communication					
18. Select communication strategies for different audiences and sectors	DMP 815				
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	DMP 815				
20. Describe the importance of cultural competence in communicating public health content		x			x
Interprofessional Practice					
21. Perform effectively on interprofessional teams		x			x
Systems Thinking					
22. Apply systems thinking tools to a public health issue			x	x	

Student Attainment of MPH Emphasis Area Competencies

My emphasis area is Food Safety and Biosecurity in the Master of Public Health (MPH) program. The APE and the ILE were key elements in furthering my education regarding public health. I also learned about food safety and public health through my MPH coursework. During the required emphasis area coursework experiences, I reinforced and strengthened my knowledge within the competencies shown below in Table 4.3.

Table 4.3 Summary of MPH Emphasis Area Competencies

MPH Emphasis Area: Food Safety and Biosecurity		
Number and Competency		**Description**
1	***Food safety and biosecurity***	Food safety and biosecurity are two sides of the same coin and protect consumers and the food animals in our care. Various organizations and establishments enforce standards and regulations across products, regions, and countries in order to verify that every level in the production chain is regulated with the goal of protecting human and animal health.
2	***Threats to the food system***	Food safety, food defense, food fraud, and food security are critical concepts to the food protection system. Protecting the food system at all levels from a plethora of risks is crucial to protecting human and animal health. National and international regulations and standards are essential to risk mitigation.
3	***Food safety laws and regulations***	National and international laws, regulations, and standards are critical to producing and providing safe food throughout the globe. The food industry is a global enterprise that allows for more accessibility to consumers. International standards for food safety are developed by many organizations including the WTO and the Codex Alimentarius Commission.

4	***Food safety policy and the global food system***	Through diversified coursework, I was able to learn about the globalization of our food system. The Food Safety and Biosecurity MPH emphasis area is focused on food safety and protection from a local to global level, and how the globalization of our food impacts its safety, and how we can mitigate risks. Animal and plant welfare plays a crucial role in the safety of produced products, whether that be due to pathogens, residues from medications or pesticides/herbicides, or zoonoses.
5	***Multidisciplinary leadership***	The MPH program has provided me with multidisciplinary coursework that has developed my perspective on food safety and public health. Knowledge and leadership skills gained through the APE, along with collaboration between professors throughout the emphasis area coursework, has expanded my knowledge and developed my skills as a leader that is able to approach any problem and view it through a multidisciplinary perspective.

Noteworthy Coursework

Kansas State University's MPH program provides its students with multidisciplinary coursework that explores the diverse connections and interactions in the public health field. I was able to gain valuable knowledge and skills that aided in furthering my development in public health. Three of the most memorable classes that I participated in throughout the program included Dr. Margaret Kincaid's One Health, Dr. Justin Kastner's Multidisciplinary Thought & Presentation, and Dr. Nadezda Shapkina's Sociology of Human Trafficking.

Dr. Kincaid's One Health course was an engaging class that emphasized the interconnectedness of human, animal, and environmental health. Through engaging videos, articles, and lectures presented by experts showing real-world case-studies illustrated how zoonotic diseases and environmental disruptions can spread across species and ecosystems. I particularly appreciated the interdisciplinary approach, which encouraged critical thinking about public health, veterinary science, and environmental stewardship and their need to work together. This course was able to deepen my understanding of emerging global health threats but also highlighted the importance of collaboration.

Dr. Kastner's Multidisciplinary Thought and Presentation course was comprehensive, offering valuable insights into a wide range of public health topics. The course challenged students to examine public health issues through a multidisciplinary lens, strengthening critical thinking, writing, and public speaking skills. Participants learned how to effectively prepare for and lead meetings, as well as how to tailor public health messaging for diverse audiences. Through assignments such as technical reports, news releases, scientific commentaries, and seminar presentations, students developed practical communication strategies for conveying complex scientific information in clear, accessible ways.

Dr. Nadezda Shapkina's Sociology of Human Trafficking course was particularly enlightening, as it provided real-world examples of social, political, and economic factors that drive human trafficking in today's globalized world. These issues of forced labor, child trafficking, and domestic servitude remain pressing concerns across many of today's societies. One major response to these challenges has been the

development and implementation of anti-trafficking legislation, which represents both national and international efforts to address modern day slavery. These efforts are implemented through a range of institutions, from local advocacy organizations to federal agencies and global agencies like the United Nations, all working in collaboration to protect vulnerable populations and to advance human rights.

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Appendix 1 Portfolio Products

Parent/Caregiver Resource Brochure 0-5 Age Group

BUILDING HEALTHY RELATIONSHIPS IN THE EARLY YEARS STARTS WITH YOU

Create a supportive environment where children feel safe, loved, and understood.

ABOUT US

CLAIRE'S COMMUNITY
RELATIONSHIP VIOLENCE PREVENTION

We envision a community where everyone enjoys safe, supportive relationships in which they can thrive and where no one is a victim — or perpetrator — of interpersonal violence. It's a big dream, we know. But prevention is possible. Educating and empowering individuals of all ages to build healthy, respectful, nonviolent relationships has a powerful ripple effect that brings transformative change to our communities.

www.claires-community.org

GROWING TOGETHER

Nurturing Healthy Bonds With Children Ages 0-5

Building strong, supportive connections with your child in the earliest years.

NURTURING THE PARENT-CHILD BOND

Create Comfortable Routines: Try building simple, predictable moments into each day, like bedtime stories or mealtimes.

Tune Into Their Needs: Whether it's a cry, a giggle, or a glance, your child is communicating. Being present helps them feel understood.

Share In Their World: Find fun things you can do together. Get curious about what they love.

CONSENT, BOUNDARIES, AND BODILY AUTONOMY

Support Their "No": Let your child know it's okay to say "no" to hugs, kisses, or touch that doesn't feel right. Respecting their choices helps them feel safe and in control of their own body.

Speak Simply and Clearly: Use the correct terms when talking about body parts and privacy. This helps your child feel comfortable and confident speaking up if something doesn't feel okay.

Practice Kindness and Consent: Model asking consent with your child (like before giving a hug) and encourage your child to ask before touching others. It's a great way to teach respect and kindness from an early age.

Learn more and find resources at www.claires-community.org

PRACTICING SOCIAL SKILLS

Create Space to Connect: Give your child time to play with others through playdates, family time, or at the park to naturally build sharing, listening, and turn-taking skills.

Show by Example: Kids learn by watching. Show kindness, empathy, and peaceful problem-solving through everyday actions like saying "thank you" and staying calm.

Support Big Feelings: Help your child name and express emotions. Use tools like emotion charts or gentle words to guide them through tough moments.

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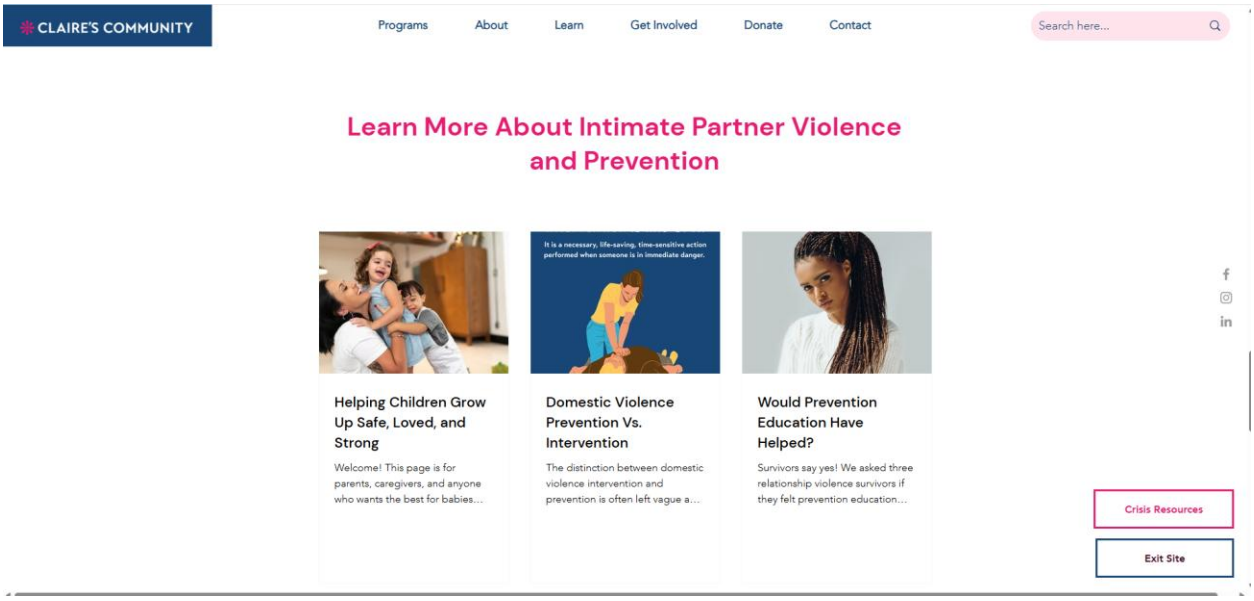
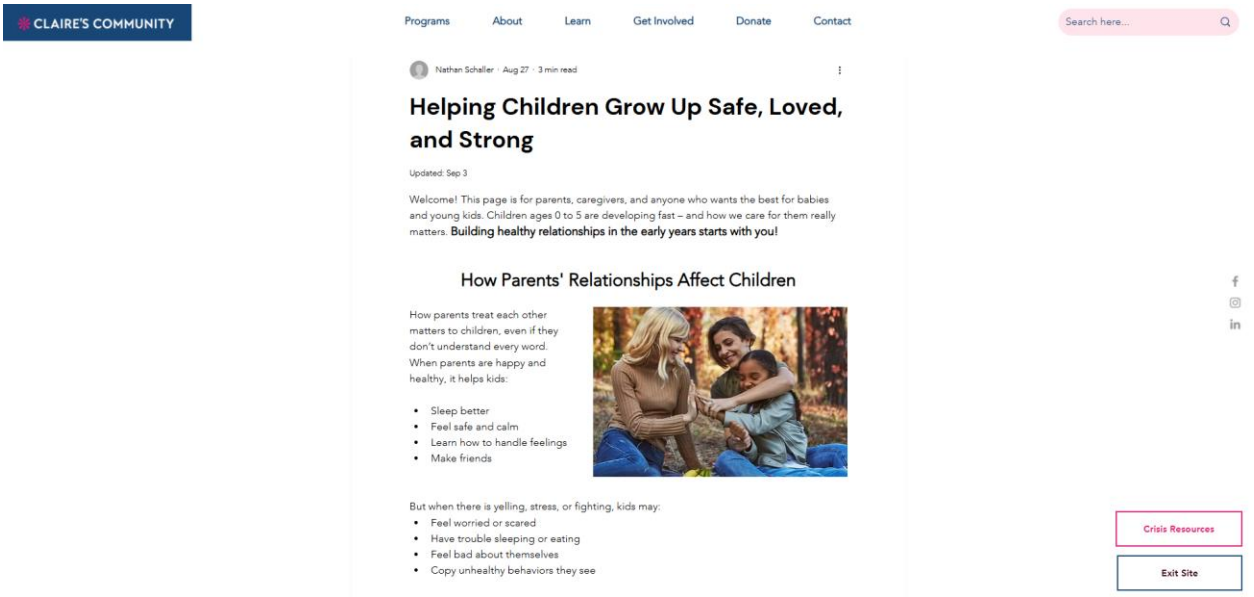
Appendix 2 Portfolio Products

Series of Blog Posts on Claire's Community Website





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Understanding Abuse and Neglect

1 in 7 children in the U.S. are abused or neglected each year.

Abuse isn't just hitting. It can also be:

- Yelling all the time
- Ignoring a child's needs
- Leaving them alone or unsafe
- Not helping with food, sleep, or love

Children in low-income or high-stress homes are at greater risk. Abuse can hurt their minds, hearts, and bodies for years to come – but there is help.

What You Can Do To Keep Kids Safe and Strong

1. Build a safe, loving home

- Stick to simple routines like bedtime and meals
- Talk and listen with kindness
- Ask for help when you are feeling stressed

2. Get support when you need it

- Talk to a doctor or counselor
- Reach out to friends, family, or parenting groups
- Make use of local services (Like childcare help or food programs)

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Breaking the Cycle of Hurt

Many parents/caregivers with tough childhoods want to do better for their children. Therapy can help you heal, parenting classes can give you new tools, and YOU can stop the cycle and build a better future.

Tips to Handle Conflict in Healthy Ways

Even loving parents disagree. Here are some ways to do it safely

1. Stay calm
2. Listen to each other
3. Apologize when needed
4. Talk in private, not in front of kids
5. Get help if things feel too hard

Resource Hub

Parenting & Family Podcasts

The PedsDocTalk
With Dr. Mona Amin

Good Inside
With Dr. Becky Kennedy

We Are Family
Parenting stories and tips

Care and Feeding
Real talk for real parents

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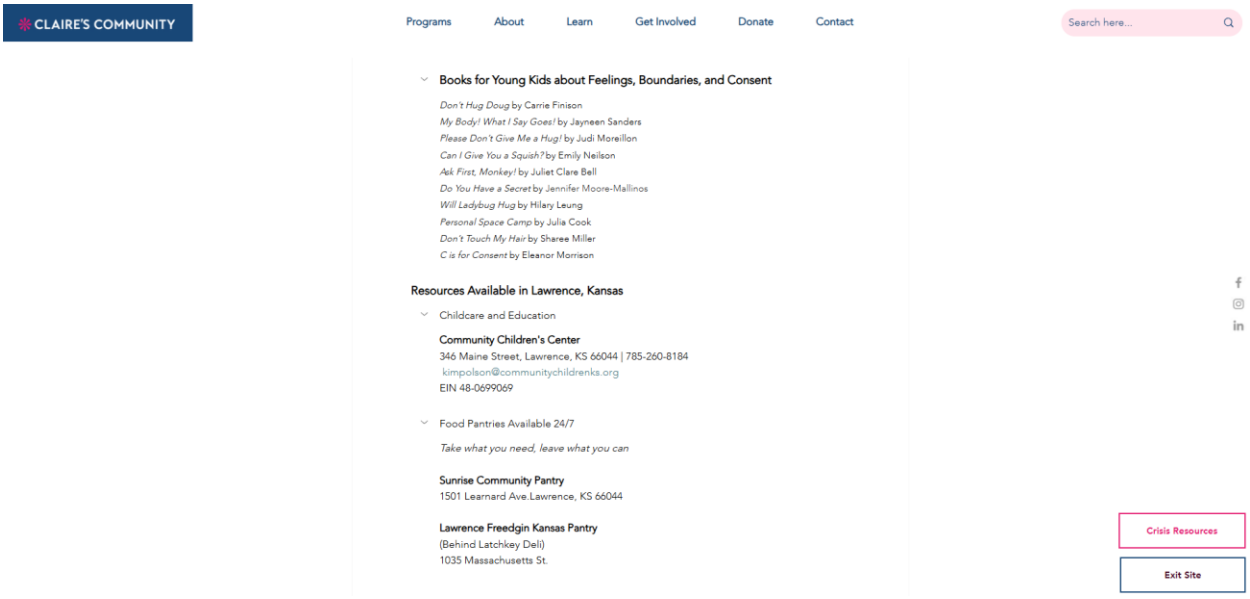
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Books for Young Kids about Feelings, Boundaries, and Consent
Don't Hug Doug by Carrie Finison
My Body! What I Say Goes! by Jayneen Sanders
Please Don't Give Me a Hug! by Judi Moreillon
Can I Give You a Squish? by Emily Neilson
Ask First, Monkey! by Juliet Clare Bell
Do You Have a Secret by Jennifer Moore-Mallinos
Will Ladybug Hug by Hilary Leung
Personal Space Camp by Julia Cook
Don't Touch My Hair by Sharee Miller
C is for Consent by Eleanor Morrison
Resources Available in Lawrence, Kansas
Childcare and Education
Community Children's Center
346 Maine Street, Lawrence, KS 66044 | 785-260-8184
kimpolson@communitychildrenks.org
EIN 48-0699069
Food Pantries Available 24/7
Take what you need, leave what you can
Sunrise Community Pantry
1501 Learnard Ave.Lawrence, KS 66044
Lawrence Freedgin Kansas Pantry
(Behind Latchkey Deli)
1035 Massachusetts St.
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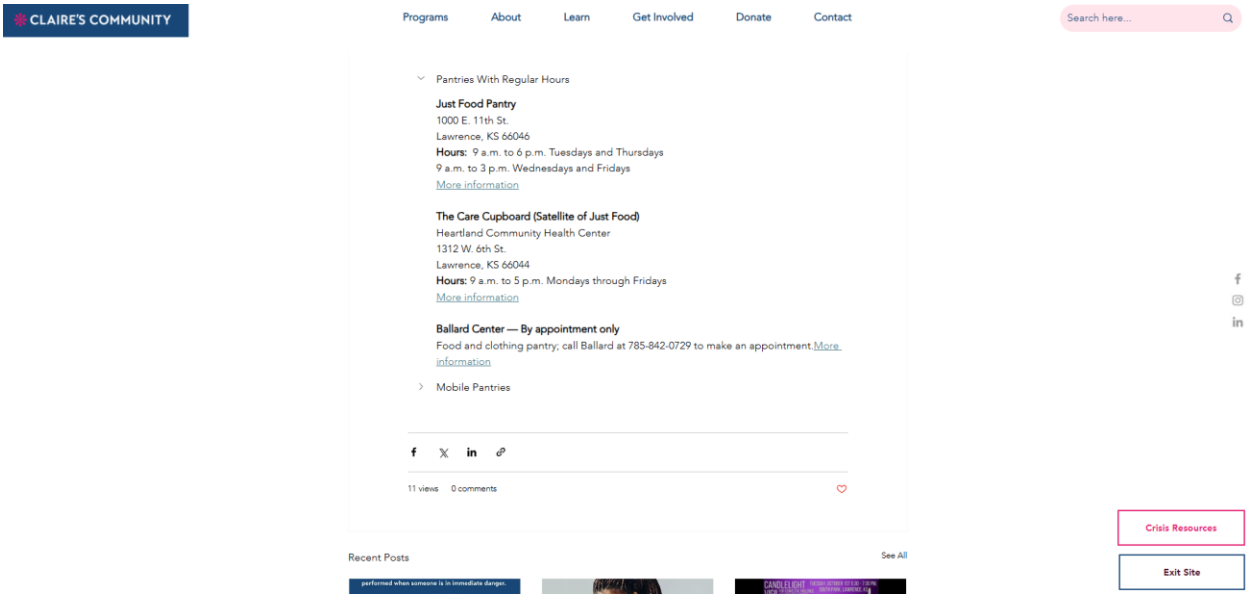
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Pantries With Regular Hours
Just Food Pantry
1000 E. 11th St.
Lawrence, KS 66046
Hours: 9 a.m. to 6 p.m. Tuesdays and Thursdays
9 a.m. to 3 p.m. Wednesdays and Fridays
More information
The Care Cupboard (Satellite of Just Food)
Heartland Community Health Center
1312 W. 6th St.
Lawrence, KS 66044
Hours: 9 a.m. to 5 p.m. Mondays through Fridays
More information
Ballard Center — By appointment only
Food and clothing pantry; call Ballard at 785-842-0729 to make an appointment.More information
Mobile Pantries
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Learn More About Intimate Partner Violence and Prevention

About Adverse Childhood Experiences (ACES)

Click to take the ACEs Index Test What are ACEs? ACEs stands for Adverse Childhood Experience...

ACEs Index Test

ACEs, or Adverse Childhood Experiences, are potentially traumatic events that occur...

Helping Children Grow Up Safe, Loved, and Strong

Welcome! This page is for parents, caregivers, and anyone who wants the best for babies...

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Nathan Schaller · 2 days ago · 2 min read

About Adverse Childhood Experiences (ACES)

Click to take the ACEs Index Test

What are ACEs?

ACEs stands for Adverse Childhood Experiences. These are scary or harmful things that happen to a child before the age of 18.

Examples:

- Being hurt or abused
- Not being taken care of (neglect)
- Seeing parents fight a lot or get divorced
- Living with someone who has a drug or alcohol problem
- Having a parent with a mental illness
- A family member going to jail
- Not feeling safe at home or in the neighborhood

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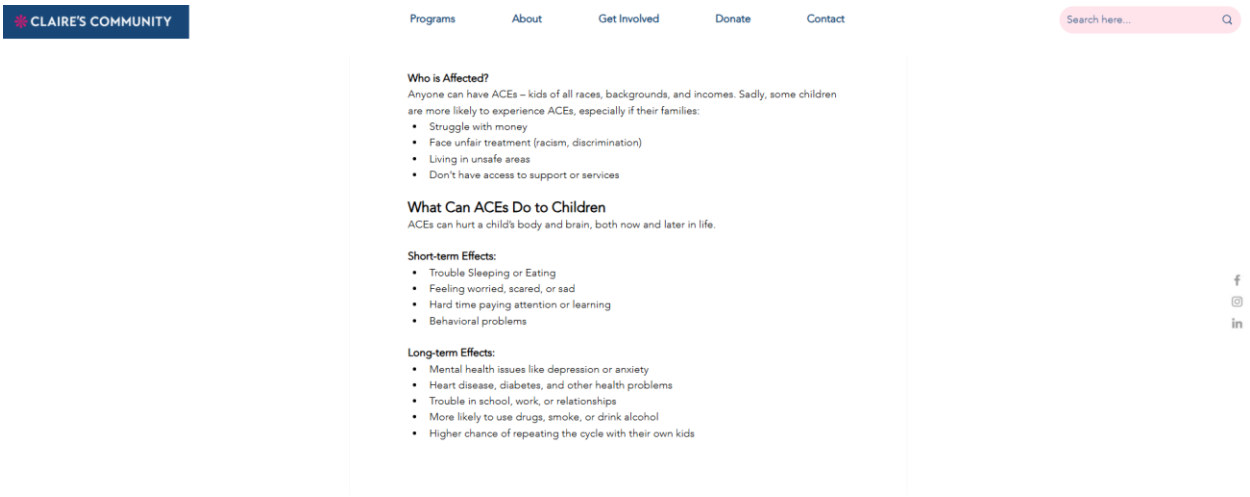
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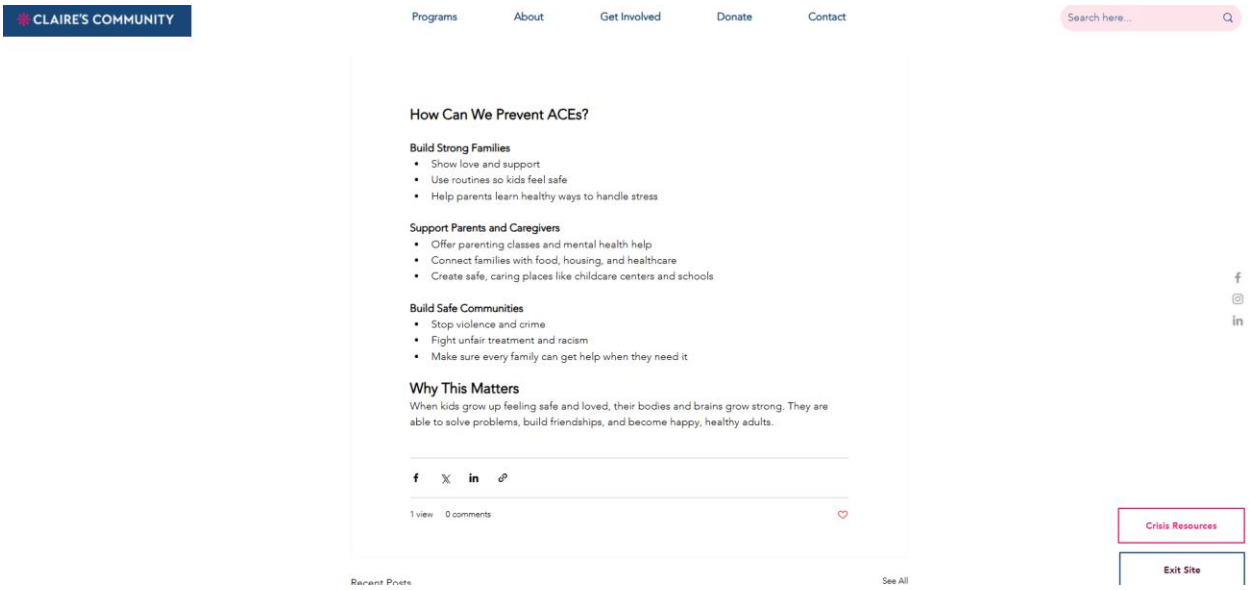
Who is Affected?
Anyone can have ACEs – kids of all races, backgrounds, and incomes. Sadly, some children are more likely to experience ACEs, especially if their families:
Struggle with money
Face unfair treatment (racism, discrimination)
Living in unsafe areas
Don't have access to support or services
What Can ACEs Do to Children
ACEs can hurt a child's body and brain, both now and later in life.
Short-term Effects:
Trouble Sleeping or Eating
Feeling worried, scared, or sad
Hard time paying attention or learning
Behavioral problems
Long-term Effects:
Mental health issues like depression or anxiety
Heart disease, diabetes, and other health problems
Trouble in school, work, or relationships
More likely to use drugs, smoke, or drink alcohol
Higher chance of repeating the cycle with their own kids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How Can We Prevent ACEs?
Build Strong Families
Show love and support
Use routines so kids feel safe
Help parents learn healthy ways to handle stress
Support Parents and Caregivers
Offer parenting classes and mental health help
Connect families with food, housing, and healthcare
Create safe, caring places like childcare centers and schools
Build Safe Communities
Stop violence and crime
Fight unfair treatment and racism
Make sure every family can get help when they need it
Why This Matters
When kids grow up feeling safe and loved, their bodies and brains grow strong. They are able to solve problems, build friendships, and become happy, healthy adults.
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ACEs Index Test

ACEs, or Adverse Childhood Experiences, are potentially traumatic events that occur during childhood – such as abuse, neglect, or household challenges. The ACEs quiz helps identify how many of these experiences a person has had before the age of 18.

Each "yes" answer counts as one point toward your ACE score. A higher score can be linked to an increased risk of health issues, emotional struggles, and social challenges later in life.

The quiz isn't a diagnosis; it's a tool to better understand how early experiences might impact overall well-being.

1. **Did a parent or other adult in the household often or very often...**
   a) Swear at you, insult you, put you down, or humiliate you, and/or
   b) Act in a way that made you afraid that you might be physically hurt?

2. **Did a parent or other adult in the household often or very often...**
   a) Push, grab, slap, or throw something at you, and/or
   b) Ever hit you so hard that you had marks or were injured?

3. **Did an adult or person at least 5 years older than you ever...**
   a) Touch or fondle you or have you touch their body in a sexual way, and/or
   b) Attempt or actually have oral, anal, or vaginal intercourse with you?

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4. **Did you often or very often feel that ...**
   a) No one in your family loved you or thought you were important or special? and/or
   b) Your family didn't look out for each other, feel close to each other, or support each other?

5. **Did you often or very often feel that ...**
   a) You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you, and/or
   b) your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

6. **Were your parents ever separated or divorced?**

7. **Was your parent/caregiver:**
   a) Often or very often pushed, grabbed, slapped or had something thrown at him/her? and/or
   b) Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? and/or
   c) Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

8. **Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?**

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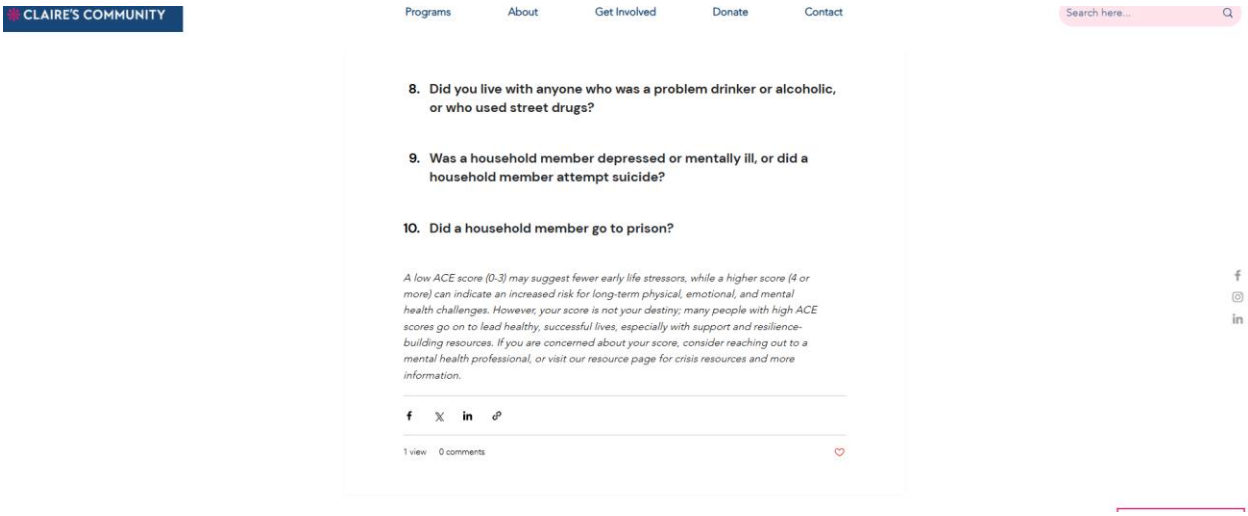
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8. Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?
9. Was a household member depressed or mentally ill, or did a household member attempt suicide?
10. Did a household member go to prison?
A low ACE score (0-3) may suggest fewer early life stressors, while a higher score (4 or more) can indicate an increased risk for long-term physical, emotional, and mental health challenges. However, your score is not your destiny; many people with high ACE scores go on to lead healthy, successful lives, especially with support and resilience-building resources. If you are concerned about your score, consider reaching out to a mental health professional, or visit our resource page for crisis resources and more information.
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Appendix 3 Portfolio Products

Parent/Caregiver Listening and Storytelling Event with Lawrence Public Library

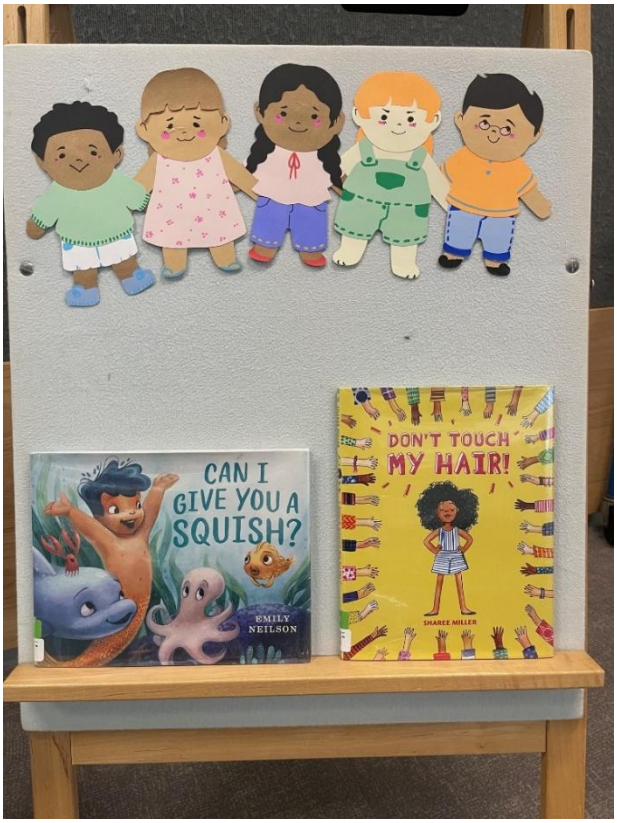


Photo 1: Chosen books for Storytelling event

Photo 2: Far back left Nathan Schaller, Middle back Hannah Parks, Assorted parents/children

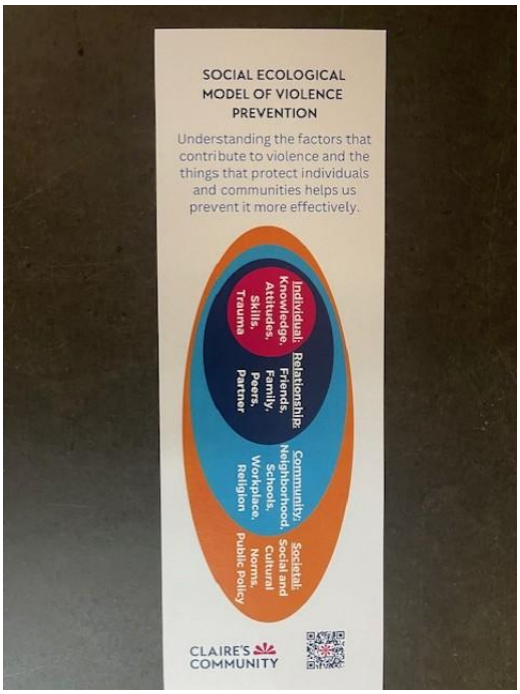
Photo 3: Far back left Nathan Schaller, Middle back Hannah Parks, Assorted parents/children

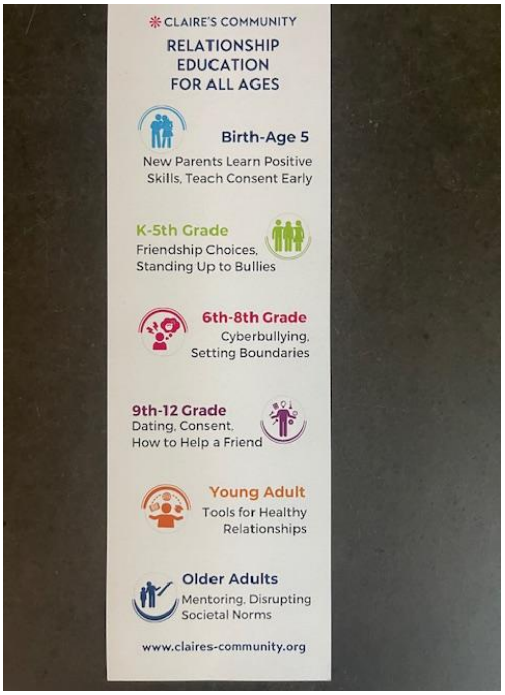
Photo 4: Back middle Shannon VanLandingham, Assorted parents/children

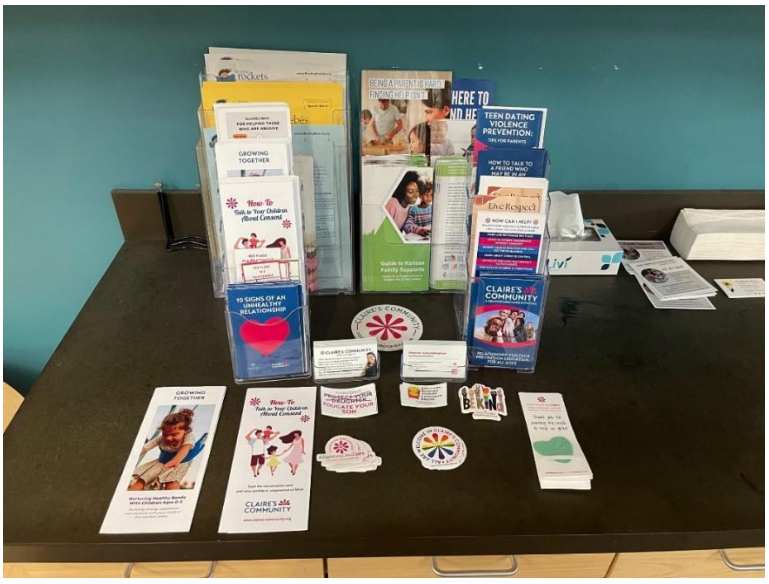
Photo 5: Back left Hannah Parks, Back middle Shannon VanLandingham, Assorted parents/children

Photo: 6 (Top left) Social Ecological Model. Photo 7: (Top right) Relationship education all ages

Photo 8: (Bottom left) Assorted resources handed out during event







Appendix 4 Portfolio Products

Cascadia Subduction Zone Emergency Preparedness Presentation/Program

What is Emergency Management?

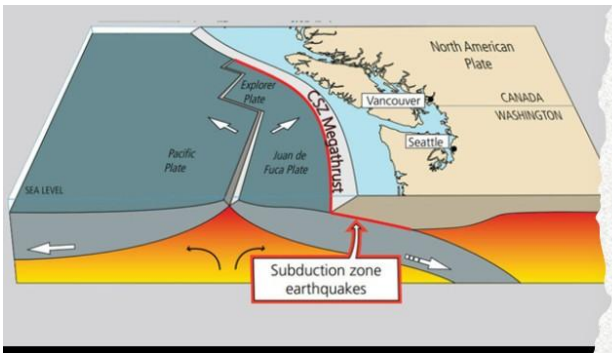
- Definition: Emergency management is the managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters. (FEMA).
- Mission: Emergency Management protects communities by coordinating and integrating all activities necessary to build, sustain, and improve the capability to mitigate against, prepare for, respond to, and recover from threatened or actual natural disasters, acts of terrorism, or other man-made disasters. (FEMA)
- Phases of Emergency Management

1. Mitigation – Prevent future emergencies or minimize effects.
2. Preparedness – Plans, trainings, exercises to ensure readiness.
3. Response – Actions to save lives, protect property, and meet basic needs.
4. Recovery – Long-term rebuilding of communities and economies.

- In Cascadia, Emergency Management (EM) is critical due to low-frequency but high-consequence hazards.

How EM Applies to Natural Disasters

- Earthquakes, tsunamis, wildfires, and floods require integrated planning.
- Emergency Management connects scientific research to real-world policy and infrastructure.
- In the Cascadia Subduction Zone (CSZ) context: EM plans must address both shaking and tsunami impacts.
- The National Incident Management System (NIMS) – guides all levels of government, nongovernmental organizations, and the private sector to work together to prevent, protect against, mitigate, respond to and recover from incidents (National Incident Management System, 2025).

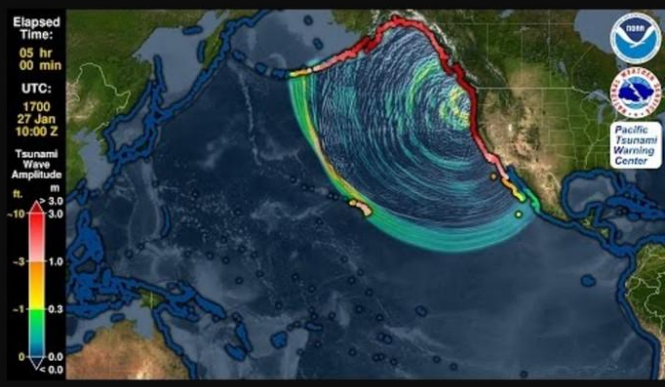


The Cascadia Subduction Zone: Overview

- A 700-mile fault line offshore from Northern California to British Columbia and is about 70-100 miles off the Pacific coast shoreline (Oregon Department of Emergency Management, OEM).
- Tectonic plates: "Juan de Fuca plate is subsiding underneath the North American plate" (OEM).
- Capable of producing megathrust earthquakes M8.0-M9.0 and trans-Pacific tsunamis.
- Geologic evidence shows repeated massive ruptures over millennia (Goldfinger et al, 2012).

Why Cascadia is Unique and Dangerous

- Entire fault can rupture in one event, releasing massive energy.
- Tsunami arrival times to some coastal areas: "can hit shore in under 20 minutes" (Oregon Office of Emergency Management, 2017).
- Urban centers (Seattle, Portland, Vancouver) and coastal towns (Westport, Seaside, Newport) are all in hazard zones.



The 1700 Earthquake: Forensic Evidence

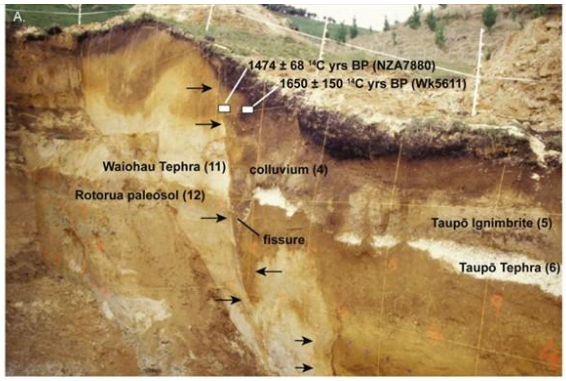
- Tree-ring “ghost forests” killed when coastal land suddenly dropped (Atwater et al., 2005).
- Tsunami sand deposits found inland, far above normal tide lines.
- Japanese records document an “orphan tsunami” (no quake felt) January 26th of 1700.
- Indigenous oral histories describe “the night the seas swallowed the land” (Valamontes, 2025).

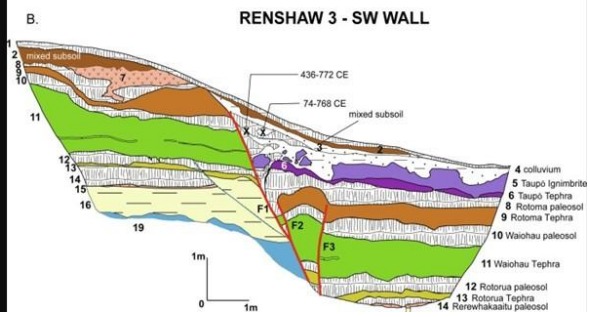
Modern Science and Indigenous Knowledge

- *Paleo seismology confirms major CSZ quakes occur ever 300-500 years (Goldfinger et al., 2012).
- Indigenous stories provide precise accounts of timing, sequence, and local impacts.
- *Plural epistemology approach: Treat oral histories as empirical data alongside geophysical evidence (Valamontes, 2025).

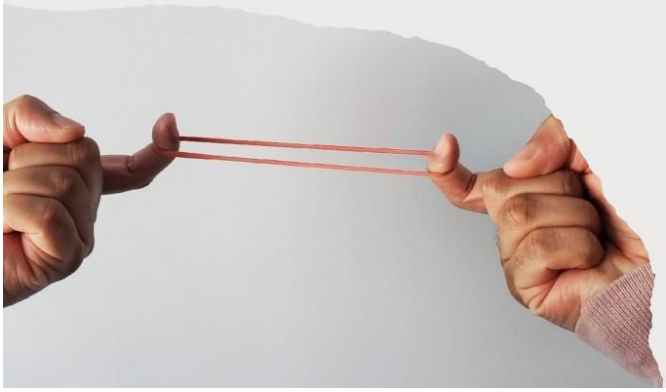
*“Paleo” means old and “Seismology” is the study of earthquakes.

*Plural epistemology, also know as epistemic pluralism, is the philosophical position that there is no single, unified, or absolute way of knowing the world. It is the view that different facts or methods can constitute knowledge and that multiple, potentially valuable, ways of knowing can coexist.





Recurrence and Probability



- The Cascadia Subduction Zone has not produced an earthquake since 1700 and is building up pressure. Scientists are predicting that there is about a 37% chance that a megathrust earthquake of 7.1+ magnitude in this fault zone will occur in the next 50 years. This event will be felt throughout the Pacific Northwest (OEM).
- Low-frequency, high-consequence risk means urgency in preparation.
- Past ruptures reshaped coastlines, rivers, and ecosystems – effects lasting decades or centuries.

The Awareness Gap in Earthquake Preparedness

"We find that PDX residents are generally aware (i.e. have the "gist") of the earthquake threat for their region but are less aware of the level of shaking they could expect at their homes. They also seem to be uncertain or unaware of liquefaction hazards. In addition, the majority of respondents say they will take some action other than the recommendation of 'Drop, Cover, and Hold On' (DCHO) when earthquake shaking starts."(MacPherson-Krutsky et al., 2021).

- No living memory of the last full rupture fuels complacency.
- Awareness campaigns help but must be paired with actionable steps and drills.
- Behavioral science shows messaging should be local, vivid, and repeated.

Real-World Comparison Tohoku, Japan 2011

- **Earthquake magnitude:** On March 11th, 2011, a magnitude 9.0 megathrust earthquake struck off the coast of Tohoku, Japan, making it one of the most powerful earthquakes ever recorded globally (USGS, 2011).
- **Tsunami details:** The earthquake generated a massive tsunami. The tsunami first reached the Japanese mainland 20 minutes after the earthquake and ultimately affected a 2000 km stretch of Japan's Pacific coast and inundated over 400km^2 of land (Mori et al., 2011).
- **Casualties:** July 27th, 2011, official fatalities were 15,641 with an additional 5,007 missing (Mori et al., 2011). August 8th, 2012, 17,500 dead, 2.848 missing, and 6,109 injured. (World Bank, 2012).
- **Economic damages:** 16.9 trillion: Buildings 10.4 trillion, Public Utilities 1.3 trillion, Social Infrastructure 2.2 trillion, Other (agriculture, forest, fisheries) 3.0 trillion (World Bank, 2012).

Infrastructure Vulnerabilities

- High-risk assets: I-5 bridges, coastal highways, ports, airports, hospitals, drinking water systems, oil/fuel depots.
- Many structures built before modern seismic codes – prone to collapse.
- Loss of transportation corridors that will significantly slow aid delivery and evacuations.
- Seismic retrofits are costly but would significantly reduce casualties and economic disruptions.

Environmental Vulnerabilities

- Ghost forests, drowned marshes, and shifted river channels show past quake impacts.
- Disruption to fisheries and *estuaries could last years.
- Landslides could dam rivers, creating secondary flooding hazards.
- Infrastructure planning must integrate ecological resilience.

*Estuaries and their surrounding wetlands are bodies of water usually found where rivers meet the sea (National Oceanic and Atmospheric Administration [NOAA], 2025).

Climate Change Complications

- Coastal erosion threatens evacuation routes and protective dunes.
- The CSZ earthquake can lower land elevations, increasing vulnerability to tidal and storm flooding.
- Sea-level rise compounds earthquake impacts, multiplying potential damages to infrastructure and homes.

“Earthquake-driven subsidence in combination with sea-level rise significantly increases flood exposure in the Pacific Northwest, highlighting the need for climate contingent preparedness.” (Dura, Chilton, Small, and Horton, 2025).

EM Strategies for Cascadia

Mitigation: Update building codes, relocate critical facilities, restore protective wetlands.

Preparedness: Public drills, emergency supply caches, evacuation signage.

Response: Regional mutual aid agreements, redundant communications.

Recovery: Pre-disaster recovery plans for housing, economy, and mental health.

Case Study: Seaside, Oregon

- Identified as high tsunami risk – all schools originally in inundation zone.
- Voter-approved bonds funded relocation of schools to higher ground.
- City adopted vertical evacuation structures for residents and visitors.
- Example of local initiative improving resilience (Oregon OEM, 2023).

Integrating Indigenous Knowledge

- Coastal tribes have tsunami evacuation traditions embedded in their culture.
- Oral histories used to refine hazard maps and evacuation zones.
- Partnership builds trust, cultural respect, and enhances science.

The Role of Public Education

- Teach Drop, Cover, and Hold On for earthquake response.
- Tsunami evacuation routes and assembly points must be clearly marked.
- Emergency kits should cover at least 2 weeks (14 days) of self-sufficiency.
- Education campaigns work best with repeated, community-based delivery.

Psychological Preparedness: Insight from Pearl S. Guterman Published Work, *Psychological Preparedness for Disaster*.

Mental readiness is as vital as logistical planning in response to a disaster. The concept emphasizes preparing individuals and communities for the emotional toll of disasters.

- Types of Disasters: Emergencies, disasters, and catastrophes all differ in scale and psychological impact.
- Terrorism vs. Natural Disasters: Terrorism cause deeper trauma due to unpredictability and intent.
- Public Misconceptions: Panic is rare; most will act rationally and help others.
- Stages of Response:

1. Rescue: Initial Shock, numbness and anxiety
2. Inventory: Assessment of loss; potential development of PTSD, depression/anxiety disorders
3. Reconstruction: Long-term coping; risk of survivor syndrome and even suicide

- Intervention Strategies:

1. Primary (Pre-event): Psychological first aid (PFA), stress inoculation, family crisis planning, and public education
2. Secondary (During event): Triage, implementation of PFA, and distribution of actionable information
3. Tertiary (Post event): Continued mental health support, therapy, and community cohesion

"How well one psychologically prepares for an event can have a bearing on the success of response and recovery efforts" (Guterman, 2005).

Call to Action

Invest in Infrastructure and Preparedness:

- Retrofit bridges, roads, hospitals, and critical lifelines to withstand earthquakes and tsunamis.
- Fund community preparedness programs, including evacuation drills, early warning systems, and emergency supplies for households.
- Support local governments and tribals nations in building resilient infrastructure.

Honor Science and Indigenous Knowledge:

- Combine geophysical research with Indigenous oral histories to understand historic seismic event.
- Use integrated knowledge to assist in urban planning, land use, and disaster education programs.
- Recognize Indigenous communities as essential partners in long-term resilience.

Prioritize Proactive Preparedness Over Reactive Recovery:

- Early action saves lives and reduces economic losses; disasters grow costlier the longer we wait.
- Develop multi-hazard plans that incorporate climate change, seismic risk, and psychological preparedness.
- Promote culture of readiness across households, schools, businesses, and government agencies.

Questions and Discussion

- Personal preparedness measures. Based on your geographic location what natural hazards are most likely to affect you? Technological? Human-Caused?
- Local vulnerabilities.
- How to better integrate community and scientific perspectives.

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2 Week Emergency Kit Basics

Creating Your Home/Work Emergency Plan/Kit
"Be 2 Weeks Ready"

Being "2 Weeks Ready" means having an emergency plan and enough supplies for you and everyone in your household to survive for at least two weeks following a disaster (OEM).

Your Emergency Plan:

1. Learn about the hazards in your area - Different places have different risks. Identify hazards where you live, like earthquakes, tornadoes, floods, wildfires, train-derailments, etc.…
2. Make a household communication plan – Talk to everyone in your household about what to do in an emergency. You might need to shelter in place or evacuate. What evacuation routes will you take from home, work, or school? Where will you meet after the disaster in not at home? How will you make contact if separated?
3. Make an emergency plan – Creating your emergency plan/kit is important, it needs to cover what to do if you need to leave or stay. In the event of an evacuation, you need to have a go-kit to take with you. (Example Emergency Kit on next slides).
4. Sign up for emergency alerts – Whether that is through a wireless emergency alert from your phone or through apps such as Facebook or X (With you following your areas emergency management office).
5. Practice – Once you have a plan, practice it! – Walk through and practice your plan every few months, test evacuation routes, take part in emergency management drills that are hosted by your areas EM team.

*Information Presented by the Oregon Department of Emergency Management

Example Emergency Go-Kit

When thinking about what to include in your go-kit, think about the Six P's

1. People and pets (Food, water, hygiene, sanitation, clothing, and comfort items).
2. Prescriptions (Medications, eyeglasses, medical devices).
3. Phones, personal computers, and chargers.
4. Plastic (ATM debit and/or credit cards) and cash.
5. Papers and important documents (Photo ID, birth certificates, social security cards, passports, insurance polices, etc...).
6. Pictures and other irreplaceable memorabilia.

*Information presented by Oregon Department of Emergency Management.

Example Emergency Go-Kit Cont.

A basic emergency kit could include the following items. Make sure to have these items in a carriable bag or wagon/container with wheels for easy mobility.

1. Water (One gallon per person per day for several days, for drinking and sanitation)
2. Food (Several-day supply of non-perishable food)
3. Battery-powered or hand crank radio
4. Flashlight
5. First Aid Kit
6. Manual can opener
7. Extra batteries and chargers
8. Dust mask (To help filter contaminants)
9. Prescription medications and non-prescription medication
10. Infant formula, bottles, diapers, wipes
11. Pet food and extra water for pet
12. Cash and debit/credit cards
13. Important family documents
14. Sleeping bag or warm blankets for each person
15. Change of clothes appropriate for climate and sturdy shoes
16. Matches
17. Feminine supplies
18. Mess kits, paper plates, cups, paper towels, and plastic utensils
19. Soap, hand sanitizer and disinfecting wipes
20. Local Maps

How Well Did You Do?

- Confident in Kit! Am Ready for Anything!

- Missed the Mark a bit, need to reassess.

The 46th *Frontier* Field Trip:

"ProjectSafe: Anticipating a cascade of predictable surprises"

Friday *and* Saturday, November 7-8, 2025

at

multiple venues in Council Grove, Kansas

Welcome

Since 2004, the Frontier Field Trip (FFT) model – a multidisciplinary and extracurricular collaborative pioneered by Jason Ackleson and Justin Kastner – has helped hundreds witness and experience the complexity of a range of issues related to public health, international trade, the agriculture and food system, and policymaking.

The FFT model includes skill-development activities in interdisciplinary thinking, problem solving, and communication; opportunities to connect with fellow students and mentors; and, supremely, a refreshing chance to (re)discover the joy of scholarship. Recognizing that the present is rooted in the past, FFTs often include archival research, creative re-enactments of landmark public health events, and other history-themed activities focused on the agriculture and food system. FFTs have involved visits to international trade ports of entry, libraries and museums, private firms, and policy offices.

In keeping with the FFT tradition, please be encouraged during this trip to feed your intellectual curiosity, grow in multidisciplinary breadth, and make friends with fellow scholars committed to "crossing disciplinary frontiers!"

About this *Frontier* Field Trip (FFT)

This FFT—the 46th in the program's history—will involve a multidisciplinary group of scholars "experiencing" a *future* public health crisis, one that is alarming yet predictable. This extra-curricular, experiential-learning event, held over a 24-hour period (Friday-Saturday, 7-8 November) in Council Grove (at the historic Cottage House hotel and the *Kanvas* event venue), offers an opportunity to grow in awareness and skills essential to preparing for public health crises of many kinds.

Over our 24 hours together, we will collectively imagine (through role-playing) a plausible crisis, one set in the United States in the middle of the 21st century (and a mere 25 years from now!). By the end of the FFT, we will have reflected on several disciplinary perspectives (from history to sociology to policymaking and predictive modelling and "futurology"), feeding our intellectual curiosity, and—we trust—becoming better prepared for the "tomorrows" of the future!

Itinerary – Friday, 7 November

3:10pm – *Manhattan-based participants meet at the west-side loading dock at Coles Hall at the College of Veterinary Medicine and load into the university motorpool van!*[1]

3:15pm – *Depart for Council Grove (futuristic music blaring!)*

4:15pm – *Arrive at the Kanvas event venue*
102 West Main Street; Council Grove, Kansas 66846

4:30pm – *Gather together in the Kanvas and find your table!*[2]

- *"Welcome to the present, which is the future?" (Holo Mike, via the Holo Network)*
- *Two governmental addresses (Secretary Valor Sterling and Governor Breezy Melody)*
- *Details, clues, and instructions to be provided (Holo Mike)*

5:30pm – *Break – Check in at the Cottage House, followed by dinner on your own (see the appendix for restaurant ideas)*

8:00pm – *Regroup at the Kanvas – as* ***devastation*** *strikes!*

- *Remarks by Holo Mike, Sec. Sterling, and Gov. Melody*
- *Mayoral announcements*
- *Table groups share how they prepared*
- *Seminar on how to best prepare for* ***devastation***

Around 9:00pm – *Theme-specific entertainment!*

[1] Be encouraged to come to the departure point already dressed up in your futuristic attire!
[2] See the Appendix for your designated table group.

Itinerary – Saturday, 8 November

Before 8:30am – *Please do the following on Saturday morning:*

- *Check out (leave your room key at the front desk; you may check your luggage at reception or simply bring it to the Kanvas)*
- *Head to the Kanvas for coffee and a hot breakfast!*

8:30am through 9:30am – *Breakfast at the Kanvas*

This meal, catered by Corks & Coffees, is provided for you!

9:30am – *Presentation by FFT alumnus and organizer Nathan Schaller*

10:15am – *Breakouts with readings and reflections (in groups)*

11:15am – *Q and A with Dr. Jason Ackleson*

11:45am – *Cleanup of the Kanvas and loading of the van*

12:00pm – *Free time (shopping, Neosho River Walk, etc.)*

Pop into Flint Hills Books (a short walk away)!
130 West Main Street
Council Grove, KS 66846

1:30pm – *Depart for Manhattan, arriving by 2:30pm*

Confidential: 46th Frontier Field Trip – master script for Nathan and Justin

Script/logistics

Morning – Justin goes to Olathe and picks up Shubham, returns to MHK by 2:30pm-ish.

~1:00pm – Justin meets up with Nathan in Topeka to give him printed-out stuff to take to Council Grove

~1:50pm – Nathan departs Topeka, texts Jay to give him a heads up

3:00pm – Nathan sets up the Kanvas

3:00pm – Justin picks up Kelli and Lily at 3508 Amy Lane

3:15pm – Justin picks up students

4:15pm – Justin and the rest of the FFT crew arrive at The Kanvas (102 West Main Street) for first session:

4:30pm – *Gather together and find your table group!*

- *Welcome to the present, which is the future? (Holo Mike)*

Holo Mike [Justin, prompts everyone to sit down]:

Good evening, glorious citizens of *Oregon*! I'm your ever faithful and trusted AI assistant, Holo Mike, beamed directly to you from our great country's Central Broadcast Dome (built earlier this year, the year 2050) to bring you tonight's spectacular, exquisite, lavish, gorgeous celebration of progress, prosperity, and possibility! [JK channel Cesar Flickerman]

Tonight is no ordinary night. No, no! Tonight is a monumental milestone in our shared journey towards a brighter, bolder, and more beautiful, synchronized tomorrow. A tomorrow where every Oregonian shines like a pixel in the great mosaic of unity!

This is fitting, you know. We are a state of love. We were founded as the 33rd state in 1859—on, you guessed it, Valentine's Day. We have been embodying and exuding love, unity, and beauty ever since! I can't wait for our bicentennial in 9 years in 2059.

I am being projected right now into a very special place—the Governor's Mansion in Salem. But you all here are welcome, wherever you call Oregon home. Whether you are joining us in person from the prestigious city of Portland, the coastal brilliance of Astoria and Lincoln City,

the emerald valley of Salem, or just watching on your holo screen ─ Tonight, you are a part of something extraordinary. Something h*istoric*.

Now I know what you all are thinking: 'Holo Mike, what's the occasion?' And while I could tell you… I won't. Not yet. Because surprises are the spice of life, and tonight's surprise is positively peppered with purpose! (Do you like my alliteration?)

So, sit back, stand proud, and prepare yourselves for an evening of announcements, affirmations, and a few fabulous signatures from distinguished fellows—a signing ceremony that will shape the course of our collective future!

And now, to begin our journey into this radiant chapter of Oregon's story, please welcome into the Governor's Mansion the vigilant, the ever-watchful, ever-wise, just-landed from Washington, D.C., Secretary of Homeland Security Valor Sterling!

- *Two governmental addresses (Secretary Valor Sterling and Governor Breezy Melody)*

Secretary of Homeland Security Valor Sterling [Dr. Ackleson]

Good evening again, residents of Oregon and welcome to this special occasion here on August 7, 2050! I'm Valor Sterling and I am excited to be with you all here tonight alongside Governor Breezy Melody. We are pleased to announce that there has been a massive surplus in the federal budget, and we at the Department of Homeland Security want to provide all the wonderful residents of Oregon an opportunity to revise, revisit, or start from scratch your planning/response to potential hazards you and your communities might face. (By the way, we are holding similar sessions over the next year in each of the 64 states in the Union.)

Due to this budgetary windfall, each household will get $100 to do as they please in the creation of their preparedness kits! We know that many of you watching are not unaware of public health challenges—whether with food, or with water, or with other aspects of the environment.

[Say line like a cheesy politician who is obviously hiding something:] While there is nothing for anyone to be nervous or scared about at this time, we just thought it would be a good idea to get people started and aware of things they *might* need in the event of a public health emergency. Again though, there is nothing to be scared of as there is no looming danger or any impending hazards!

Holo Mike, if it's okay, I will turn things over to the wonderful Governor of Oregon who will share the details of a proclamation they will sign into law thanks to the work done by the Oregon State legislators! Governor Melody everyone!

[Applause for Governor Melody]

Governor Breezy Melody [Nathan Schaller]
Hello, my fellow Oregonians and thank you for joining us tonight, whether you are here in person or watching on your holo phones! Just this afternoon, our state legislators finalized a bill that approved acceptance of federal surplus dollars to be sent back to the people here in Oregon—in order to provide families and communities with the necessary funding to gather and prepare resources for any and all contingencies. While there is no danger and, like Secretary Sterling said, I can assure you everything is fine at the moment, we in the State government wanted to help our citizens any way we can, especially when it comes to preparing for the future! That is why tonight you all have the privilege to watch me sign this Big Beautiful Bi… I mean Proclamation allocating funds to every citizen and household of Oregon!
[A la DJT, aggressively signs document with a sharpie, large signature, then flashes signed document to people/cameras, hands sharpie to random person as a memento]
Now that that is out of the way! We here at the Governor's Mansion have gathered together in person households of 4 each from two wonderful cities in Oregon. If you are watching this on the holo network, this is your chance to learn from them and cheer them on.
We have here in the Mansion households from two distinguished communities:

- Portland (Table 1) – Tim, Maddie, Kenna, and Lily
- Astoria (Table 2) – Carissa, KJ, Shubham, and Kelli

[Provide fake money or check to groups/cities Portland and Astoria]
You get $100. You get $100, too.
We trust that you all will take these funds and apply them to what you think will best benefit your household of four! [Nathan distributes resource list, and blank forms for their total inventory, and explains how to keep math; **Nathan also tells them to "elect" a mayor, etc., and have a spokesperson ready**]
Please remember, though, there is no danger and no need to be nervous! We just want everyone to be prepared *if* anything happens.

• *Details, clues, and instructions to be provided (Holo Mike)*

Holo Mike [Justin]:

Howdy fellow humans of Oregon tuning in to the holo network for this broadcast! It's me, Holo Mike, again, your trusted sidekick and provider of factual information!

As Governor Melody stated, there is nothing to be afraid of, but you all now have funds that will allow you to purchase resources or supplies for your household! Each "group" has enough funds to purchase $100 worth of resources! Think about where you live and what might be of the most

benefit to you based on your geographic location! Remember, there is no danger at all! We at the Capitol want you all to be safe and prepared!

[Groups will have time to discuss the resources and items they think they will need based on their personal needs and geographic locations]

[play Hunger Games soundtrack from the PlayList]

[time for some group work, and then break for check-in and dinner]

Holo Mike [Justin]: If you and your group still need to deliberate about your preparedness kits, try to go to dinner at the same place and return at 8pm with a completed worksheet/kit!

5:30pm – *Break – Check in at the Cottage House, followed by dinner on your own (see the appendix for restaurant ideas)*

8:00pm – *Regroup at the Kanvas – as* ***devastation*** *strikes!*

Video/projector only:

[Justin play earth-quaking song played by Carol King]

[Justin queue up slide with text: It is now November 7, 2050]

- https://youtube.com/shorts/wZ7XhLynM84?si=F644Fs54wo7Aih6t
- https://youtube.com/shorts/iCU1NEO99q4?si=I-kMFlicZSkgneeV

- *Remarks by Holo Mike, Secretary Sterling, and Governor Melody*

Holo Mike [Justin, with Secretary Valor Sterling/Jason]:

Attention, citizens of Oregon, this is Holo Mike joined by Secretary of Homeland Security Valor Sterling, addressing you live from the Emergency Management Incident Command Center of the Department of Homeland Security. Secretary Sterling, we understand you have an announcement to make:

Secretary Valor Sterling [Jason]:

We have just confirmed that the Cascadia Subduction Zone has ruptured. This is a real-time seismic event of an unprecedented scale. Extreme shaking and ground movement have been detected across multiple regions, and tsunami warnings are now in effect.
All citizens are instructed to remain calm, follow local emergency directives, and most importantly listen closely to Governor Melody, who will now address the state with critical information.

Governor Melody [Nathan]:

Good morning, my fellow Oregonians.
At 9:30 am this morning, the Cascadia Subduction Zone ruptured, producing a magnitude 9.0 earthquake along our beloved Pacific Northwest coast. This event has triggered multiple tsunami waves (like the one we just saw in the video) that are on their way or have already started to impact coastal communities. We are facing one of the most severe natural disasters in our state's history.
I want to assure you that emergency response operations are fully mobilized. The National Guard, the Federal Emergency Management Agency (FEMA), local law enforcement, and medical teams are actively working to secure affected areas and save lives. Our first priority is the safety and survival of every resident.
Due to the magnitude and severity of this earthquake, there have been many disruptions to our infrastructure including transportation routes such as roads and bridges, as well as our power and communication services. All emergency shelters inland have been activated, and we are doing our best to free up transportation routes for evacuation and delivery of first aid. Power and communication services may be disrupted for extended periods of time, but backup systems are being deployed.
If you are located in a low-lying coastal region, you must immediately seek higher ground. Tsunami waves may continue for several hours, and aftershocks should be expected across the state. Please do not attempt to return to damaged areas until authorities confirm it is safe to do so.
This is a moment of great challenge. But I remind you, we have prepared for this possibility, and we will respond with resilience, courage, and unity. Stay calm, follow official instructions, and check on your neighbors when it is safe to do so.
Further updates will be provided via Holo Mike on the Holo Network's emergency broadcast.
[~8:20pm]

Holo Mike [Justin]:

I believe we are now going to hear from the local leaders on the ground in Oregon.

First, we have an update from Mayor _____ of Portland!

• *Mayoral announcements*

Mayor of Portland Speaks [_____]:

My fellow Portlanders,

This morning's Cascadia Subduction Zone Earthquake has left our city with devastating damage. Initial reports confirm that multiple bridges across the Willamette River, including portions of I-5 and I-84 corridors, have either collapsed or are structurally unsafe. This severely limits transportation routes for emergency crews and makes access across the city extremely difficult. Many older buildings that were not fully retrofitted to modern seismic standards have been badly damaged or destroyed. Downtown, numerous high-rises and historic structures have suffered partial collapse. Residential neighborhoods in East and North Portland report widespread structural failures.

We are also monitoring the Columbia River very closely. There is a real risk of flooding as levees and riverbanks may have been compromised. To compound this, oil storage facilities along the river have ruptured, raising concerns about fires, toxic spills, and environmental contamination.

Power and communications are down across large parts of Portland. Holo phone service is limited, and we ask residents to use Holo phones for emergencies only. Water and sewer systems are also disrupted, creating health risks that we will need to address quickly.

The Portland International Airport has sustained catastrophic damage, rendering runways unusable. This means large-scale air relief operations cannot land here at this time. Instead, supplies and aid will need to be routed through smaller regional airports until runways can be cleared and repaired.

These realities will slow first aid, rescue, and rebuilding efforts. But our emergency teams are already in the field, conducting rescues, setting up temporary shelters, and providing medical care wherever possible. We are working closely with state and federal agencies to prioritize restoring transportation, power, and clean water.

I know this is overwhelming. Our city is facing a difficult moment. But I know Portland is strong, resilient, and united. I urge everyone to stay calm, to help your neighbors when it is safe to do so, and to follow emergency instructions from official sources only.
We will survive this tragedy, and we will rebuild together. Further updates will follow as information becomes available.

Holo Mike [Justin]:
Thank you, Mayor _____. What a tremendous challenge, what tremendous heartache, what tremendous times [channel Cesar Flickerman]
But Portland isn't the only community to experience this devastation. No. To give us another local report, we have an update from a leader of one of Oregon's coastal communities, Mayor _____ of Astoria!

Mayor _____ of Astoria [_____]:
Citizens of Astoria,
The Cascadia Subduction Zone earthquake has struck with unimaginable force. Our city has sustained devastating damage. Many of our historic downtown buildings, including parts of Commercial Street and Marine Drive, have collapsed or burned. The Astoria-Megler bridge has suffered severe structural damage and is currently impassable, cutting off road access to Washington.
The earthquake tremors and shaking have ruptured water and sewer lines, leaving much of the city without running water. Portions of Highway 30 are blocked by landslides, isolating us from Portland and the Willamette Valley.
Our greatest threat now is the tsunami. Models show waves could reach the mouth of the Columbia River within minutes. Low-lying areas near the waterfront, including Riverwalk, the Port of Astoria, and the Tongue Point area, are in extreme danger. I urge every resident: **evacuate to high ground immediately.** Do not attempt to drive along the waterfront. Move uphill to safe zones, including the neighborhoods above 16th Street and other high grounds east of downtown.
Astoria's Coast Guard station and Port facilities have been heavily damaged. Fuel tanks near the river have ruptured, creating hazardous conditions. Please avoid all floodwaters. Power is down

across Clatsop County, and communication lines are limited; however, I can share that the Holo Network seems to still be functional.

Holo Mike [Justin]:

Well, that's a relief!

Mayor _____ of Astoria [_____] continues:

We are setting up evacuation centers at Astoria High School and other elevated schools and churches on higher ground. Volunteers are already guiding people uphill. If you need assistance, flag down emergency personnel or neighbors.

I know this city has endured fires, floods, and storms before, but never anything of this magnitude. I ask you to remain calm, stay together, and protect one another. The tsunami is coming, go to high ground now, and do not return until officials declare it safe.

Astoria will survive. But today, our mission is clear: save lives first. We will rebuild together when the waves have passed.

Holo Mike [Justin]:

Thank you, Mayor _____. We also have the Mayor of Lincoln City, Sandy Seagull [Kent] being dispatched through to provide on the Holo Network an announcement for their city's residents and visitors

Mayor Seagull of Lincoln City [Kent]:

People of Lincoln City,

The Cascadia Subduction Zone earthquake has struck with catastrophic force. Our community has already suffered significant damage. Roads in and out of the city are broken by landslides and buckled pavements, leaving many neighborhoods cut off. Sections of highway 101 have collapsed, and emergency access is severely limited.

Many homes and businesses along the beachfront have been destroyed or are heavily damaged. Buildings not built to modern seismic codes and standards have partially collapsed. The hospital has sustained damage but is still operating at reduced capacity. Power is down across the city, and communications remain unreliable.

But I must stress above all: a tsunami is coming. Models show waves of extraordinary height moving toward our coast, expected to strike within the hour or as soon as 20 minutes. If you are in a low-lying coastal area, you must evacuate immediately to high ground. **Do not delay. Do not return for belongings. Move inland and uphill.**

We are working quickly to open evacuation shelters in schools, churches, and community centers on higher ground. Volunteers and emergency crews are already guiding people to safe locations. This is a life-threatening emergency. Please help your neighbors, especially the elderly and those with disabilities. Listen to official instructions only' do not rely on rumors or social media.

I know this is frightening. Our city is facing devastation, but our first priority is survival. Once the waves pass, we will begin search and rescue, and then recovery. But for now, I urge you: go to high ground and stay there until the all-clear is given.

Lincoln City has endured storms and hardships before. We will endure this, too. Stay strong. Stay safe. **Evacuate now!**

Holo Mike [Justin]:

Oh, dear, all of this talk of tsunamis. I...just...cannot...fathom...this!

We have one more mayoral report. However, unfortunately, the mayor of Salem is unable to get through because of downed communication lines, so we will broadcast via the Holo Network his announcement that was sent to us. Logically, it makes sense for the governor of Oregon, Breezy Melody, to read what the Salem mayor sent us:

Governor Melody [Nathan, reading; alternative option, TBA: Debi Schwerdtfeger, the *Corks & Coffees* caterer who is the Mayor of Council Grove, pretends to be this mayor and pops in and reads it!]:

Greetings my fellow residents of Salem,

The Cascadia Subduction Zone has ruptured, producing a magnitude 9.0 earthquake. The shaking we experienced here in Salem has caused widespread damage to our city and surrounding communities.

Bridges across the Willamette River, including Center Street and Marion Street bridges, have suffered severe structural damage and are currently impassable. This has cut off critical eat-west connections, limiting emergency response across the city. Several smaller bridges over Mill Creek and Pringle Creek are also impassable.

Downtown Salem has seen extensive damage to older buildings not built to seismic codes. Brick facades have collapsed, and some historical structures have been destroyed. Many neighborhoods across South Salem, West Salem, and East Lancaster report collapsed homes, broken water lines, and power outages.

Our communication systems remain unreliable, though Holo Mike seems to be operational. The Salem hospital is under tremendous strain, treating large numbers of injured residents, while also coping with structural damage. We are setting up triage sites at local schools and community centers, including South Salem High School and North Salem High School, to assist overflow patients.

While we are inland, we must prepare for the secondary effects of this disaster. The Columbia River has been disrupted by landslides upstream, raising concerns of flooding that may affect water and power infrastructure throughout Willamette Valey. Oil reserves and supply lines to our north have been heavily damaged, which will affect fuel and food delivery in the days to weeks ahead.

Our emergency services are working tirelessly, but I must ask all residents: please stay off the roads unless you are evacuating unsafe housing. Allow first responders to reach those most in need. Check on your neighbors, especially seniors and those with medical needs.

This is the greatest threat our city has faced. Salem will be without power, water, and reliable fuel for some time. But together, with patience, resilience, and compassion, we will endure this disaster and rebuild.

Stay strong, Salem. We will get through this together.

[Nathan then segues into a time of the two groups sharing their decisions on the preparedness kits]

- *Table groups share how they prepared*

Groups present prepared materials and evacuation plans

- Portland (Table 1) – Tim, Maddie, Kenna, and Lily
- Astoria (Table 2) – Carissa, KJ, Shubham, and Kelli

- *Seminar on how to best prepare for **devastation***

Seminar presentation on emergency preparedness kits 101 [Nathan], followed by "how did your group do?" reflection and discussion...

Around 9:00pm – *Theme-specific entertainment!*

[*Parks and Rec, The Office, etc.]*

Pictures from the Frontier 46 Field Trip

Photo 1: Group picture day 2

Back row left to right: Kenna Hiebert, Maddie Pike, Tim Drake, KJ Inskeep, Kent Hildebrand, Nathan Schaller, Jason Ackleson

Front row left to right: Kelli Shoemaker, Lily St. Jacques, Carissa Jonak, Shubham Kumar

Photo 2: Group picture day one

Left table: Kenna Hildebrand, Tim Drake, Maddie Pike, Lili St. Jacques

Right table: KJ Inskeep, Carissa Jonak, Subham Kumar, Kelli Shoemaker

Photo 3: Governmental address and signing of Proclamation

Left to right: Jason Ackleson, Nathan Schaller

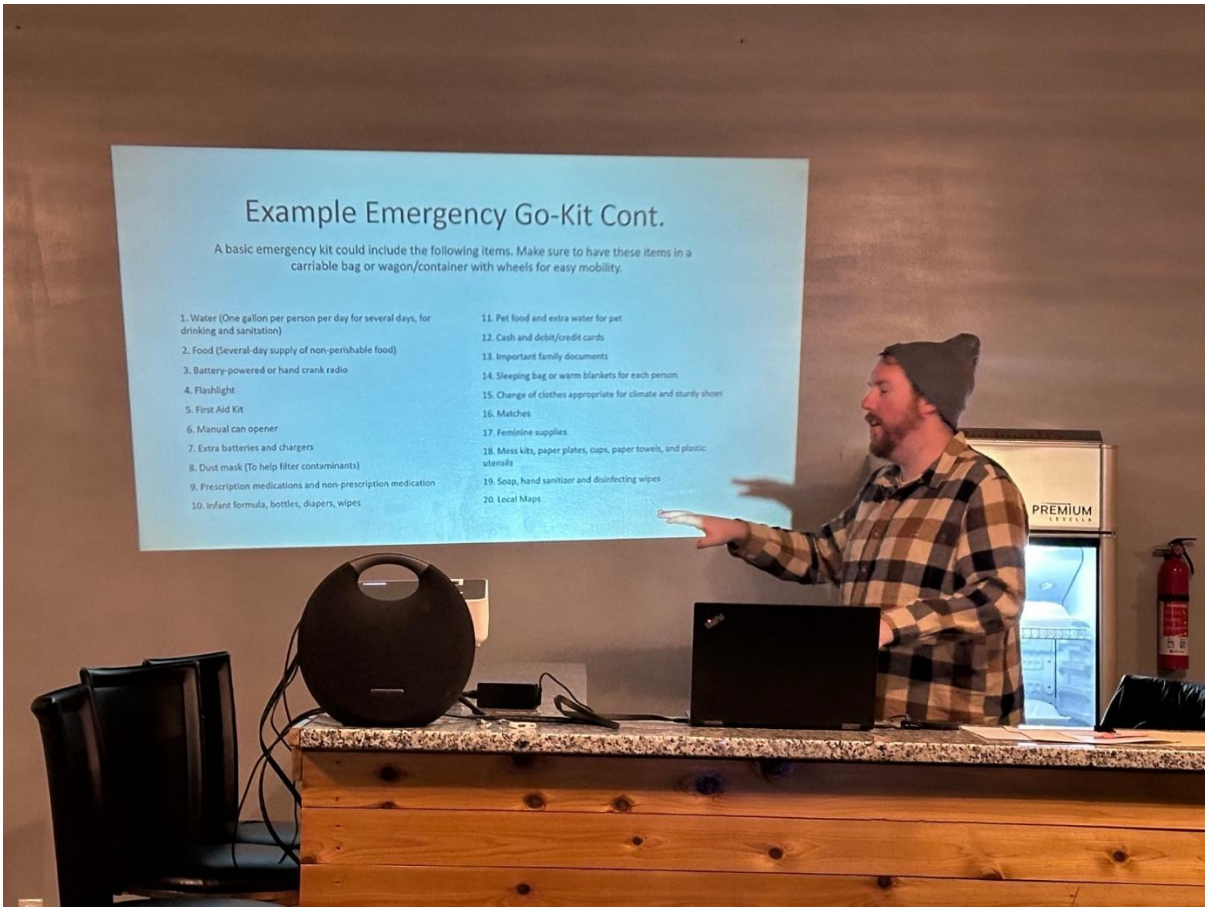

Photo 4: Presentation of Emergency Preparedness Kit

Nathan Schaller

Photo 5: Announcement of future events

Back left to right: Nathan Schaller, Justin Kastner