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Northwest Public Health

THE MAGAZINE OF THE UNIVERSITY OF WASHINGTON SCHOOL OF PUBLIC HEALTH

DGGGNG DEEPER TO SOLVE OUR HARDEST HEALTH ISSUES

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SOCIAL DETERMINANTS OF HEALTH: FROM EPIDEMIOLOGY TO JUSTICE

Those of us in public health are "upstreamists" (as described by public health innovator Dr. Rishi Manchanda). We know that health begins in homes, communities, and workplaces—far upstream from the clinics and hospitals that deliver what we euphemistically call "health care," but what we all too often experience as "sickness care."

Poverty, deprivation, and race are powerful predictors of poor health. Adversity and stress in childhood predict poorer health across the lifespan. Zip codes have emerged in recent years as not just geographic markers, but also proxy indicators of poverty, educational opportunity, neighborhood safety, park access, and more—and therefore, as powerful predictors of life expectancy.

In Seattle's Wallingford neighborhood where I live, the average life expectancy at birth is roughly 83 years. If I lived on Mercer Island, life expectancy would be 86, but if I lived in parts of Auburn, it would be less than 77—nearly a 10-year gap within the range of a morning bike ride. The same pattern in other health indicators is seen across our state; premature mortality is twice as high in Grays Harbor County as in King County.

This inequity is deeply wrong. No concept of justice could possibly countenance such arbitrary disparities in life's opportunities. For this reason, social determinants of health form one of our School's strategic priorities.

In this issue of *Northwest Public Health*, you will read about efforts in our School and our northwest practice community to understand and remedy health disparities.

Anjum Hajat, who recently joined our faculty to focus on social determinants of health, describes her research on social and environmental stressors. Stephen Bezruchka makes the case for paid parental leave—a strategy that could help level inequities in early life. You will read about the



efforts of Caleb Banta-Green and Gary Franklin to prevent opioid misuse—a scourge in Washington State and across the country, and of work by School of Public Health undergraduates and alumni to study social media and adolescent health.

From gun violence to seedy housing, from food deserts to underfunded schools, from economic insecurity to racism, social factors loom large in determining people's health. For public health professionals, this is both a daunting challenge and a vast opportunity. We need the courage to fight racism and injustice, the flexibility to work upstream, and the tenacity to stick with complex problems over the long haul.

I hope this issue of *Northwest Public Health* informs you and inspires you as you carry on this great work.

Howard Frumkin, Dean University of Washington School of Public Health

PHOTO: AMOS MORGAN



FINE-TUNING OUR Focus on Health

BY BETTY BEKEMEIER

WHAT DRIVES GOOD OR POOR HEALTH?

Most Americans believe their individual characteristics, like genetics and behaviors, have the strongest influence. Public health research and history tell a different story—one that gives social, economic, and cultural conditions and institutions the crucial role in fostering health outcomes—and provide the lens through which we should approach our work.

Safe neighborhoods with well-maintained housing, good schools, access to nutritious food, community connectedness, and economic stability are critical for nurturing healthy development. Likewise, discrimination, income inequality, and low political power greatly undermine our communities and the development of healthy families. Social factors are determinants that set each of us on a course for good or poor health from before we are born and across our lifespans. They give some of us advantages over others, and they foster different and unfair health outcomes among the people and communities we live in and serve.

We're devoting this issue of *Northwest Public Health* to the social determinants of health and equity for three reasons: they are the fundamental cornerstones of health and well-being, we have an obligation to build awareness about them, and, most importantly, we can influence them. In fact, inaction in the face of inequities makes us active contributors to injustice. Martin Luther King Jr. called it the "ultimate tragedy" when the oppression of cruel systems and "bad people" are met with the silence of "good people." We in public health like to consider ourselves among the "good," but to truly live up to this we have to take positive action.

Our long-held beliefs and our well-intentioned efforts first require self-reflection. This means deeply examining our work to date, our strategies, and our partnerships, and reconsidering the scope of our practice. This is difficult, especially when we acknowledge how often racial and economic discrimination are at play. For example, despite our long history of working to protect water and air quality for everyone, we haven't prevented dangerous exposures in some communities. The recent lead poisoning in Flint, Michigan, and the high rates of childhood asthma in communities of color are stark reminders of this.

Embracing the social-ecological model will help us make progress. This model gives us an important framework for collaborating with schools, transportation departments, labor movements, policy-makers, and more to address the underlying and overlapping spheres of influence on health. If we need inspiration, our professional history teaches many lessons about community organizing for policy and systems change. As a public health nurse, I'm partial to Lillian Ward, who famously organized and advocated for women, families, and minority health issues and without the conveniences of today's communication technologies—or even the right to vote.

After self-reflection, it's time to act. Our limited funding and the rising distrust of government intervention make this challenging too. But our public health foremothers and forefathers committed themselves to vaccine development and immunization campaigns, ending general fears that smallpox and measles would strike our children and eliminating many disparities in childhood communicable diseases in the US.

More recent historical public health efforts have also dramatically changed the landscape of smoking and tobacco use in this country. Through dogged evaluation of scientific evidence and community

organizing for policy change, public health leaders helped create smoke-free workplaces and housing units that have prevented exposures and saved lives.

If you remember anything about these health efforts, it's probably their controversy—some of which persists today in different forms. Instead of dreading the inevitable opposition, we can prepare for it. In fact, sometimes the first hurdle we face is among our own ranks, where some are eager to focus their efforts upstream to work on social determinants—even when the evidence for how to proceed is thin. And others fear the change that comes with doing things differently and without much to guide next steps. Let's take up these challenges together.

The mountains of scientific evidence we've amassed about health disparities will be the first tool we employ. To use our favorite analogy, we've stood at the mouth of the river and counted those who are drowning. In other words, we've looked at communities and identified their differential health outcomes. What we now need are more strategies, examples, and evidence for effectively tackling these differences upstream.

This issue of *Northwest Public Health* features innovative efforts in which state, local, tribal, and academic leaders have examined the data, developed partnerships, and taken bold steps toward addressing seemingly intractable disparities. These stories of public health practitioners and their community partners addressing tribal suicide, opioid misuse, environmental health, maternal and child health, food security and access, housing, gun violence, and mental health provide valuable insights for implementing our core mission—to create conditions in which people can be healthy. They are a testament to what can happen when we take a hard look at our often well-intentioned current practices and, along with community partners and other stakeholders, address the underlying drivers of health.

The advent of the microscope brought about a revolutionary new lens for viewing health—both literally and figuratively, big and small. Using glass and light, the device gave those who were looking, a new perspective on the tiny elements of life. At the same time, the tool expanded common perceptions about the origins of disease, and not without controversy. In a similar vein, the stories and examples in this issue provide specific details that help fine-tune the focus of our work, and offer creative inspiration to help expand our perceptions of what is possible in health promotion.



Betty Bekemeier is the Director of the Northwest Center for Public Health Practice. She is an Associate Professor in the University of Washington School of Nursing and Adjunct Associate Professor in the School of Public Health.

UNEARTHING **THE LAYERS OF HEALTH**

Conditions in which we are born, grow, live, learn, work and age Housing, schools, employment, and transportation Air, water, weather, and food systems Physical, emotional, and psychological safety

> INSEIEUEIONAI Social, political, and cultural systems Laws and policies Racism and discrimination Political stability and civil rights Social and cultural norms

Understanding the dynamic interplay between these health factors can help unearth unique partnerships and innovative processes for influencing health.

Most people believe individual characteristics and actions form the foundation of our health. If we dig deeper, we will find that health is shaped by interconnected interpersonal, environmental, and institutional factors.

INDIVIDIJAL

Biological factors and individual characteristics Genetics and age Health beliefs, actions, and skills



INFERDERSOUAL Connections, interactions, and support Family members Social networks Caregivers



ENVIRONMENLAL





Growing a **Network in Garden City**

The Garden City Community Collaborative is using a collective impact model to help make positive changes.

BY RUDY YULY

Life isn't easy in Garden City, Idaho.

According to Josh Campbell, Director of the Genesis Community Clinic, a small nonprofit that provides free health care services, more than a third of the 5,000 residents in the census tract live below the poverty level. Garden City, an urban enclave of Boise, has twice as many police calls per capita as any other area of the city, and 10 times as many domestic violence calls.

Much of Garden City's housing is in the form of trailer parks, which can be notorious for health hazards; many residents are on probation or parole. Drug and alcohol abuse are rampant. High school graduation rates are low. Chronic health issues are prevalent and health outcomes are poor. Access to care is a serious issue because Medicaid was not expanded under the Affordable Care Act.

While Genesis Community Clinic is limited to providing free medical, dental, and mental health care services, Campbell realized that providing these services without addressing the social conditions that are making people sick would



not be an effective use of the clinic's limited resources.

"The County Health Rankings very clearly delineate which factors, from a public health perspective, have the most impact," said Campbell. "Health care alone only has a 20 percent impact. Dealing with the social determinants of health has a 40 percent impact."

With this in mind, Campbell and his staff brainstormed ways their organization, consisting of six FTEs, and an operating budget of \$400,000, could tackle such a daunting list of social and economic factors. The first step was obvious.

"You have to put boots on the ground and start building relationships," said Campbell. "If it is your passion, reach out and ask other organizations if they care about it too."

Campbell started doing that very thing just over a year ago. Today, using a collective impact model as a guide, he and his colleagues have convinced nearly 20 Boise-area organizations to band together in a loose but active collaboration. They meet once a month to pool resources, share information, actively hand off services, and develop solutions.

The multi-sector group includes city and state agencies, including the Garden City Police Department, religious organizations like the Genesis Community Clinic, nonprofits like the Idaho Food Bank, and academic partners like the Boise State University Department of Nursing.

Because of the group's size and varied organizational missions, determining which social factors to prioritize and which common measures to strive for can be challenging. Campbell admits the group has not yet landed on the most pressing social determinants to tackle.

"At this point, we haven't honed in on any one issue, but we have collectively recognized the need to go beyond health care and prevention services, and focus on connecting residents to additional resources like job training, housing and utility assistance, support groups, and faith groups," he said.

"You have to put boots on the ground and start building relationships. If it is your passion, reach out and ask other organizations if they care about it too."

Campbell said the group eventually plans to focus its efforts on two or three specific social conditions, but getting to that point will take at least another six months. In the meantime, the group is trying to improve its effectiveness and reach.

"We have found this to be

an incredibly powerful way to better identify needs, share resources, and prevent duplication of efforts," said leremy Maxand, Director of Life's Kitchen, one of Garden City's most recent partners. Life's Kitchen provides free job and life skills training to at-risk youth between the ages of 16-20, teen emergency housing, homeless shelters, day centers, after-school opportunities for low-income students, and school lunches and meals. "The most important aspect of the collaborative is the ability to personally connect people with resources you know and trust—to make referrals that will result in actual services provided," said Maxand.

The Idaho Department of Labor is another partner in the collaborative. "We've been able to bring together many organizations that offer services and help them network with each other," said Timothy Leigh, Assistant Manager of the Labor Department's Boise Office. "Knowing who to call for food, clothing, housing, mental or medical help, or other supportive services is great for the customers we serve."

Since the collaborative is only a year old, data on the group's success is anecdotal. But participation is active, enthusiastic, and growing, with partners informally expressing a renewed sense of empowerment and effectiveness.

"For people looking to do similar work, I would suggest starting with a small area and working from there," said Campbell. "If everyone comes to the table, and prepares to stick with it for the long haul, a ton can be accomplished for the community."

The Five Elements of **Collective Impact**



COMMON AGENDA

All partners signed off on the same agenda: "To improve the health and well-being of individuals, families, and neighborhoods of those most in need in Garden City."



SHARED MEASUREMENT

Because of state laws, data sharing is not easy, but as more people collaborate, information sharing is improving.



REINFORCING ACTIVITIES

Members of the collaborative meet once a month and share updates on their organizational activities.



CONTINUOUS COMMUNICATION

Garden City partners stay in touch through email, updating each other on community needs. The strategy team helps set long-term plans and priorities.



BACKBONE ORGANIZATION

Genesis Community Clinic took the lead in convening the group and helps keep things moving.





Researching the Health Impact of Climate Change in Rural Communities

Researchers at the University of Alaska Anchorage's Institute for Circumpolar Health Studies have partnered with rural Alaskan communities to monitor the health impacts of climate change.

Using a special surveillance system, community members monitored their exposure to climate change events, such as extreme weather, thawing permafrost, and reduced sea ice, and documented their risk factors and health outcomes. Their research found that climate change is negatively impacting the health of residents in several ways, including increased rates of cold-related injury and fatality, food and water insecurity, allergic asthma, and paralytic shellfish poisoning.

With community input, the team identified adaptation strategies to mitigate these adverse health outcomes, such as better monitoring of air quality and improved access to health care.



Coaching Boys Into Men to Promote Respectful Relationships

The Idaho Coalition Against Sexual & Domestic Violence helped five school districts implement Coaching Boys into Men (CBIM), an innovative program that helps high school and middle school coaches teach young male athletes how to build respectful, non-violent relationships.

Coaches receive support from a local trainer and a toolkit which provides instruction for guided discussions around topics such as male privilege, power dynamics in interpersonal relationships, and the importance of expressing emotions in a healthy way.

A randomized-controlled trial of CBIM involving 16 high schools and over 2,000 athletes in Sacramento, California, found that those who participated were less likely to perpetrate abuse and less likely to not say anything or laugh when witnessing disrespectful behavior or abuse by their peers.



Healing Communities and At-Risk Youth Through Dialogue

The Center for Restorative Youth Justice (CRYJ) is working to reduce recidivism and promote rehabilitation by engaging youth offenders, victims, families, and the community through open dialogue.

CRYJ's programs—such as community impact circles, victim offender conferencing, and restorative mentoring and service learning promote healing and accountability.

Over the past four years, CRY has reached nearly 1,700 youth. Of those, 95 percent have successfully completed the program and less than 12 percent have committed additional crimes.

Since 2009, Flathead County has seen a 60 percent decrease in youth repeat offenders and a 75 percent decrease in state funding spent on juvenile incarceration.



American Indian and Alaska Native youth (AI/AN) are disproportionately affected by mental health issues and suicide. For many teens, social media posts can foretell harm to self or others. Last summer, the Northwest Portland Area Indian Health Board and the Social Media Adolescent Health Research Team at Seattle Children's conducted focus groups with AI/AN teens and young adults to learn their perspective on concerning social media content. They found that over two thirds of participants preferred Facebook as the platform to receive intervention messages. In January 2016, the team ran a suicide prevention messaging campaign through Facebook and its We R Native website. The campaign encouraged

youth to respond proactively to concerning messages posted by friends, including language such as: "You don't have to do it alone. If you see a friend post something that concerns you, check out a few of these resources that can help." So far, the campaign has reached over 238,900 people and generated over 49,400 video views.



Integrating Health Into Housing Upgrades Reducing Air Pollution Exposure

In Curry County, Oregon, one in three people live in manufactured housing, much of which is in substandard condition. While federal funding can be used by low-income families to repair or replace homes that need energy upgrades, these funds cannot be used for manufactured housing. A pilot program was proposed that would allow use of funds to repair and replace substandard manufactured housing in Curry County.

The Housing Stock Upgrade Initiative Health Impact Assessment (HIA) helped promote new design standards for manufactured housing that would improve residents' physical and mental health and meet the needs of aging residents. The HIA also identified employment opportunities for local residents related to construction and repairs. So far, five homes have been replaced, 13 are in process of repair or replace, and another 15-20 repair projects are expected to be funded.

in the Duwamish Valley

The Duwamish Community Action for Clean Air project is working to improve air guality and exposure to air pollution thanks to a partnership of federal, regional, nonprofit, neighborhood, and community organizations.

The partnership completed a literature review to identify potential projects for implementation in the South Park and Georgetown neighborhoods. This information was shared with local communities through multilingual workshops, with community members weighing in on project viability. Green screens-freestanding vegetated walls or façades that support the growth of native, fast growing vines—were identified due to additional benefits such as storm-water management, decreased urban heat island effect, shading, security, and graffiti control. Locations are being identified and construction is expected to begin in late 2016.

Using Social Media for Youth Suicide Prevention and Intervention





A Community Approach to Food Security

A nonprofit organization in Albany County, Wyoming, is taking a community-based approach to achieving food security and promoting healthy eating in a rural, low-income area with the highest rate of food insecurity in the state.

"The primary focus of Feeding Laramie Valley is to promote local food sovereignty and sustainability not only in Albany County, but throughout Wyoming as well," said founder Gayle Woodsum. "We're working hard to make food security the norm through community selfsufficiency, sharing, and cooperation."

Comprised of a coalition of individuals, groups, and agencies, Feeding Laramie Valley promotes the growth, collection, and distribution of fresh foods. The program also supports community gardens, conducts community-based research to inform programming, and raises awareness about food justice.



A Clearer Picture of Alaska's Suicide Puzzle

Alaska Natives commit suicide at more than twice the national average. Linked data promise to better inform prevention strategies.

BY RUDY YULY

n October 2015, hundreds of Alaska Natives gathered at Anchorage's Dena'ina Civic and Convention Center for the annual Alaska Federation of Natives Convention. As in past years, a big focus of the conference was on the high suicide rate among indigenous Alaskans, a rate that is more than twice the national average. Many attendees were still mourning four Alaska Natives from remote Hooper Bay, population 1,093, who committed suicide over a two-week period less than a month earlier.

During the final hours of the conference, an uplifting ceremony recognized Alaska Natives making positive impacts in their communities. Immediately afterward, a 49-year-old male participant climbed over a thirdfloor railing and jumped off. He died instantly.

"It was very sad, and it adds a sense of urgency about our work to understand what leads a person to harm them self," said Deborah Hull-Jilly, Health Program Manager and Injury Epidemiologist for Alaska's Division of Public Health and Principal Investigator for the Alaska Violent Death Reporting System (AKVDRS). The reporting system is operated by the Injury Surveillance Unit of the Alaska Division of Public Health. Thirty-two states, including Alaska, currently participate in the Centers for Disease Control and Prevention's National Violent Death Reporting System, a state-based surveillance system that collects and links data from multiple sources.

Along with her colleague, Scott Saxon, Hull-Jilly is responsible for gathering and disseminating more than 700 data points—primarily from death certificates, the medical examiner, and law enforcement—about every violent death in the state, including suicides. With an area spanning more than 660,000 square miles, much of which is accessible only by boat or plane, it's a huge job that the two have been working hard on for more than 15 years.

"Alaska's reporting system is performing a critical public health function by creating a more complete understanding of those who have died and their relationships, and circumstantial information, such as criminal histories, alcohol and drug use, or mental health issues," said Safe States Alliance Executive Director Amber Williams. "This detailed picture helps researchers, practitioners, and policymakers hone in on specific violence issues, tailor violent death prevention efforts to the needs of their communities, evaluate their effectiveness, and ultimately, save lives."

Suicide deaths induce a particularly painful wound in a community, leaving many people wondering why they happened. In Alaska Native communities, pressures from rural isolation, the need to survive on subsistence economies, and years of discrimination and trauma commingle with common, overlapping suicide determinants like alcohol and drug use, stress from military combat, mental illness, seasonal effects, and relationship issues. These interwoven factors make it difficult to tease out the leading factors, much less a single cause.

Hull-Jilly and her colleagues are looking for patterns in the data that point to solutions.

"I think of the information as a three-dimensional jigsaw puzzle," she said. "There are so many layers to the problem—demographics, age, stressors, isolation, and access to counseling services. The real key is using the information to assist in prevention and postvention modalities."

Hull-Jilly and Saxon are also trying to connect people working on these critical risk and protective factors. They believe doing so will better inform and coordinate prevention efforts among health care providers in behavioral health, public health and public safety, law enforcement, the Alaska Native Health Coalition, and smaller communities.

"We use this data for long-term program development and prevention programs," said Laura Baez, Director

Collecting Toxicology Data

Since January 2015, Alaska's medical examiner has conducted basic toxicology testing on all individuals who have died by suicide. In the past, tests were not conducted to detect drugs or alcohol. This toxicology data is a potentially significant addition to the reporting system.

"We're very interested in determining what type of drugs may have been used," said Hull-Jilly. "We don't know what that threshold is which pushes someone to take their own life. We want to understand if prescription or illicit drugs are contributing factors that have not been formally identified."

of Behavioral Health for the Alaska Native Tribal Health Consortium, an independent organization that works closely with the state. "It provides us with a picture that helps inform our suicide prevention initiatives and an extensive training program for folks in the villages who provide services."

"Alaska's reporting system has been incredibly useful in planning suicide prevention efforts among Alaska Natives and other high-risk groups," said Alaska's Division of Behavioral Health Program Coordinator Claire Schleder. "By knowing the risk factors associated with suicide deaths—like substance use, mental illness, violence—we can conduct further surveillance into those factors and determine what strategies have evidence of effectiveness in reducing those risks."

Schleder said that using this data to pinpoint high suicide death rates by demographic and circumstantial variables helps focus efforts and determine what strategies will be the most effective in preventing suicide among Alaskans.

"Without this information, prevention efforts can still be conducted, but they will likely yield suboptimal outcomes and deplete limited resources," she said.

After more than a decade in suicide prevention, Hull-Jilly is eager to reduce the high suicide rates among Alaska Natives. She is confident good data will make the difference. To keep the collective work moving forward, she aims to make this information as accessible as possible.

In the summer of 2016, a comprehensive report covering a 10-year period will be released, which Hull-Jilly hopes will provide "the clearest picture yet" of suicide in the state.

TRACKING AND TREATING OPIOID **ADDICTION IN WASHINGTON STATE**

Washington was the first state to recognize and respond to the nation's epidemic of prescription painkiller overdose deaths.

BY MICHAEL MCCARTHY

he Centers for Disease Control and Prevention has prioritized prescription opioid overdose as one of the nation's top health concerns, recently announcing national guidelines for prescribing opioids—a landmark move for the agency. While the move marks a nationwide call to action for reducing death rates related to this epidemic, Washington State pain experts and public health professionals have been at the forefront in recognizing this problem and developing solutions to address it.

"For good or ill, Washington State is about two years ahead of the rest of the country," said Caleb Banta-Green, PhD, MPH, MSW, Senior Research Scientist with the Alcohol and Drug Abuse Institute and Associate Professor at the University of Washington School of Public Health. "Washington was the first state to recognize the rise in prescription opioid use and do something about it, and we're the first state to see use level off and begin to decline."

The declining use is a victory for public health professionals, won by a hard-fought battle where data was the first weapon. Over a decade ago, Gary M. Franklin, MD, MPH, Research Professor in the departments of Environmental & Occupational Health and Health Services, and his colleagues reported a marked jump in opioid-related overdose deaths among workers covered by the state workers' compensation system. They discovered people were getting hurt on the job and seeking pain medication from their doctors. Too frequently, these workers would overdose. Researchers linked the increases in medication access and death with the relaxing of prescribing laws in the late 1990s.

DIVERSE INTERVENTION OPTIONS

Until addiction rates decline, alternative methods to prevent

overdose deaths in Washington State are being explored.

BUPRENORPHINE

Banta-Green and his colleagues are working to increase the use of drug treatment for opiate dependency and addiction. Buprenorphine is a partial opioid agonist that can be prescribed by primary care providers to manage addiction and support recovery. The drug cuts the risk of dying of overdose by 50 percent.

Eased regulations and heavy marketing from pharmaceutical companies enabled physicians to prescribe more pain medication, such as hydrocodone and oxycodone, to more patients, especially those with less lifethreatening conditions. Unfortunately, the effort to relieve suffering ended up causing more harm than good. It created what Franklin called the "worst man-made epidemic in medical history," a prescription-opioid epidemic that has left more than 175,000 Americans dead, and millions more addicted.

In response to the prescription opioid epidemic, Washington State's Agency Medical Directors' Group (AMDG), a collaboration of state agencies, convened an advisory group of clinical and academic pain experts to draft new prescribing guidelines. The guidelines, issued in 2007 and updated in 2010, encourage physicians to use opioids more conservatively and at lower doses. They also recommended that providers consult with a pain specialist when a patient's daily dose reaches a threshold level known for substantial increased risk of overdose. In 2012, the state also set up an online prescription monitoring program to help track controlled substances.

For patients who do require opioids, the guidelines recommend early follow-up evaluations to assess whether both pain and function have improved. The newest iteration of the guidelines released in 2015 say opioid regimens that do not improve the patients' function by at least 30 percent are not clinically meaningful, and they encourage other strategies, such as graded exercise and cognitivebehavioral therapy. "This is huge," said Franklin. "If a patient is not improving in both pain and function, you shouldn't keep them on opioids."

Thus far, the prescribing guidelines have made a positive impact in the prescription-opioid epidemic fight. "After the guidelines were put into practice, there was a 40 percent decline in prescription opioid overdose deaths statewide,

SAFE INJECTION SITES

Advocates are working to make Seattle the first US city with safe injection sites-medically supervised environments that prevent overdose and connect users to support services.

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from 512 deaths in 2008, to 319 in 2014," said Franklin, who is also the Co-Chair of AMDG.

However, when an upstream approach is implemented after a problem surfaces, many people can get caught in the prevention gap. In this case, it's those who became addicted before the prescribing regulations were tightened, many of whom remain at risk for continued misuse and overdose. In some cases, tightening prescription regulations can reroute the addiction pathway to alternatives such as heroin, which is both cheaper and easier to access. So while Washington State celebrates substantial success in lowering the rate of prescription opioid related deaths, a different number is rising. "Heroin-involved deaths have doubled from 146 to 293 during the time frame we saw a decline in prescriptionopioid deaths," explained Banta-Green.

Once opioid addiction manifests, it can only be managed, not permanently eliminated. Access to treatment services is heavily influenced by a patient's resources and social circumstances. Further, those using prescription opioids illegally or using illegal opioids such as heroin, face differential legal consequences due to race and class. "Not only are we seeing adverse health consequences due to the use of drugs themselves, but also due to the legal consequences of drug use which are strongly influenced by race, class and geography," said Banta-Green. "The societal consequences are huge."

The opioid epidemic is far from over. Strides have been made to stem the tidal wave of addiction and overdose by creating a more thoughtful prescribing culture and offering new intervention options. However, for Banta-Green and his colleagues, public health must also address the roots of addiction. "If you listen to these patients, it isn't just about pain; it's about pain, anxiety, and depression," he said. "Pain is a very human experience, and it shouldn't be ignored."

NALOXONE

A new UW and Seattle Police Department initiative will train and equip bike officers with nasal naloxone, which can reverse the effects of opioid overdoses.



LEAD PROGRAM

Instead of jailing and prosecuting offenders of lowlevel drug crimes, Seattle's Belltown neighborhood Law Enforcement Assisted Diversion (LEAD) program diverts them to community-based treatment and other support services.

Early Childhood Lasts a Lifetime

OPINION BY STEPHEN BEZRUCHKA

ddressing our hardest health challenges at their core means recognizing that health's "core" is a person's earliest stage of development—as a zygote or first cell. This first cell divides 42 times to produce a newborn. Five more cycles of cell division produce an adult.



During this earliest period of life—called the first thousand days—roughly half of our health as adults is programmed. In my courses, I have students introduce themselves by talking about conditions their mother bore them in while in utero, their birth weight, and how much time a parent spent with them in their early years.

Commonly, I hear stories such as "my mother was working at a stressful, low-paying job until she went into labor and I arrived at a low birth weight. Then she had to go back to work two weeks later, and I was raised by others."

Such circumstances lead to issues down the line, such as chronic diseases as an adult.

The harsh truth is that Americans die younger than inhabitants of similarly rich countries. For adult mortality (the chances of dying between age 15 and 60), we are on a par with Sri Lankan girls or Tunisian boys.

One major reason for our poor health is economic inequality, which causes families to struggle to get by during a child's early years. Every country with a population exceeding a million guarantees paid time off of work for new mothers, except the US and Papua New Guinea. Sweden offers a full year of paid leave, Hungary two years, and even Uganda offers three months. The US has a Family Medical Leave Act which grants certain employees up to four months of leave without pay. Only 11 percent of eligible women who have a baby are able to take this leave. The rest can't afford it.

We have the highest infant mortality rates among all nations and are among the highest rates of prematurity, low birth weight, and compromised infant development. We are one of eight nations worldwide that have seen increases in maternal mortality in the last decade. We get what we pay for.

The Washington Physicians for Social Responsibility have attempted to gauge public attitude towards having a paid parental leave program in Washington State. We conducted on-the-street interviews in a variety of neighborhoods. All individuals supported the idea of a policy with substantial time and income support. Most didn't have concrete ideas for how to fund such a policy, but when asked if they would support a payroll tax, there was almost uniform agreement. As we go from zygote to zeitgeist, the first thousand

For comparison, we interviewed individuals from Victoria and Vancouver, British Columbia, and the results were strikingly different. Canada has a yearlong paid leave policy at 60 percent of a person's salary, with an employer often contributing more. Even though the policy is paid from taxes, the people without children who we talked to felt it was fair that they paid into the process even though it did not directly benefit them. It was a part of being Canadian, namely to take care of everybody, and they felt the government was there to serve everyone.

In 2007, Washington State passed a paid maternity leave act granting five weeks at a very low weekly rate of pay. It was never funded and was added to a scrap heap of legislation that will never see action. This year, another similar bill failed to receive a hearing in the fiscal process. Nationwide, only three other states have functioning paid leave policies, all with short duration and low compensation.

Paid parental leave policies have demonstrated benefits, including lower rates of infant and child mortality, low birth weight, and prematurity. Breastfeeding is more successful and father-child bonding is stronger. Children grow up to have fewer teen babies and more college education. When women return to work, they, and the economies in which they reside, are more productive. In short, there are no downsides.

Why don't we have such win-win policies? One belief is that paying for leave might incentivize women to have more babies (though there is no evidence to support this). Another belief is that families should save up for taking time off to parent. Finally, a third attitude is that it would be bad for business to hold a position for a returning employee.

How much time should be given to parent? I suggest 39 weeks split between the mother and father with the mother taking 26 weeks to support exclusive breastfeeding for six months, the World Health Organization's recommendation. The pay scale should be based upon the individual's salary up to a reasonable limit, and for those without a job, adequate financial support should come from the state.

What will it take to accomplish this? Public will. Public health can foster this process by educating the public on great need, possible benefits, and lack of harm related to parental leave policies.

Washington Physicians for Social Responsibility is working on a strategic plan based on the qualitative research we have done, which will inform other chapters. We have passed a resolution on paid parental leave by working with the Washington Academy of Family Physicians and will try to involve decision makers in Olympia, Washington. Most of all, we will work to inform the public to get them to advocate for change.

days matter most for us and for society. Early life lasts a lifetime. Let's begin with a funded statewide policy to support it. We might just get back to our standing as one of the world's healthiest nations.



Stephen Bezruchka is a Senior Lecturer for the University of Washington School of Public Health in the Departments of Global Health and Health Services. He has spent over 10 years in Nepal working in various health programs and teaching in remote regions.



TENDING TO THE ROOTS OF CHILD WELLNESS

Odessa Brown Children's Clinic, a community clinic of Seattle Children's, continues to move upstream to provide holistic health services in the early stages of a child's life.

BY MICHAEL MCCARTHY

S taff at the Odessa Brown Children's Clinic (OBCC) have long known that the roots of health extend far beyond the reach of their clinic walls and into the socioeconomic situations of their young patients—many of whom come from economically disadvantaged, minority families.

"We realized we had to find ways to engage our community and address the sources of stress that were affecting our families and making children ill," said Benjamin Danielson, MD, the clinic's Chief and Medical Director. "It was not enough for us to wait for a child to get sick and come to the clinic before we intervened. These stressors have a long-term negative impact on the physical and mental health of patients and exacerbate a cycle of health disparities, disrupting their abilities to form healthy relationships, succeed in school, and ultimately in society."

OBCC has a long history of providing health services to the

community. Born out of the civil rights movement, the clinic was founded in 1970 to provide pediatric primary care to the underserved population of Seattle's Central District, then a predominantly African American community.

With gentrification and rising home prices changing the neighborhood in which OBCC serves, the clinic has found new ways to improve access to care. In addition to medical treatment, OBCC now provides WIC, dental, mental health, and nutrition services to families, regardless of their ability to pay. OBCC's parent organization, Seattle Children's, is also considering opening a second clinic further south to expand services and reach patients pushed out by changes to the neighborhood.

In the early 1990s, the clinic established the Garfield Teen Health Center to support adolescents and teens who are at academic risk or have no other means of obtaining health care. During the 2014–15 school year alone, 236 students received mental health therapy in some form, 15 families engaged in therapy together regarding their student's needs, and 53 students engaged in group therapy.

The program, despite its success, made clear the need for even earlier interventions. Research shows that the first three years of life is a critical timeframe for brain development and overall health. An infant's environment, especially experiences and relationships with caregivers, shapes and reinforces the neural connections that create brain architecture and determine who we are as people.

With the Garfield Teen Health Center, the clinic's Mental Health Director, Mark Fadool, and his colleagues could see the clear link between early-life stress and the development of mental health disorders, such as anxiety and depression. This in turn led to additional problems such as academic failure.

"This realization drove us to focus further upstream by providing mindful, reflective mental health care as early as possible and embedding it within our primary care efforts," said Fadool.

For example, during well-child visits, OBCC has implemented a screening tool called the Karitane Parenting Confidence Scale. In a non-judgmental manner, the tool asks parents a set of standardized questions to assess how comfortable and confident they feel about caring for their child. For those who experience relationship difficulty with their child, the clinic offers evidence-based programs to promote child-rearing skills that will enhance both the child-parent relationship, and the child's social and emotional development.

In addition to this tool, the clinic also screens all families for sources of stress due to poverty, housing and food insecurity, and family discord as part of routine care. "Gathering this important information helps providers build trust and rapport with families, which helps them feel comfortable to tell their stories," said Fadool. Social workers and community care coordinators help connect these families with local social and community services such as food and housing assistance, and even legal aid.

Another OBCC program called Promoting First Relationships (PFR), trains caregivers and parents to recognize and respond positively to the social and emotional needs of children from birth to three years old. Developed by



Gene Kelly, a Professor Emeritus at the University of Washington School of Nursing, the strengths-based training program can be provided in the home or remotely. A unique aspect of PFR is that providers can be trained to implement the program within the setting of their own clinic. Fadool, who is a PFR trainer, plans to expand the program and its reach by training more staff at OBCC.

"The goal is to build upon the strengths of the parentchild relationship so children can feel secure and develop healthy relationships as they mature," said Fadool. "It was important to us that we implemented a model in our clinic that was loving, nurturing, and compassionate."

Along with moving further upstream, Fadool and his colleagues recognize the need for meeting at-risk families and patients in their own neighborhoods and communities. In order to reach children lacking regular access to health care, the clinic provides services at two elementary schools. Funded by levy dollars and the OBCC budget, these schoolbased clinics are staffed with a mental health provider, nurse practitioner, and a community care coordinator. These programs also have access to OBCC's nutritionist and child psychiatrist. OBCC plans to expand this model to even more schools and partners in the years to come.

Ultimately, the goal of all of these efforts is to invert the triangle of care. "Instead of providing the bulk of care when children are already in trouble, the goal is to provide the largest proportion of services upstream when children are still young and family relationships are still developing," said Fadool. "This approach allows us to grow wellness in children by supporting the whole person."



With Anjum Hajat

Anjum Hajat is a Research Assistant Professor in the Department of Epidemiology at the University of Washington School of Public Health. In this interview, she describes how the social determinants of health plays a role in her research.

Tell us about your research. What excites

My research looks at how social and environmental stressors such as poverty and air pollution cause cardiovascular disease. These stressors often have a disproportionate impact on disadvantaged populations, and subsequently their health. I am interested in understanding the mechanisms by which these stressors enter the body and impact health as a way to form intervention strategies. I am fascinated by the intersection of social and biological factors this is how social factors get under the skin.

A new area that I'm excited about and becoming more involved in is the health implications of economic policies. With colleagues in the School of Public Health and community partners, we are looking at the impact of work and non-work stressors on the health of low-wage a reduction in incarceration, and improvements in civil participation. All of these areas of improvement workers. Our long-term interest is to understand if Seattle's will in turn build stronger, healthier communities. minimum wage legislation has any discernible impacts on the health of the low-wage working population. We are in the very early stages of this work, but we hope to be able to secure funding for a bigger, long-term study.

Q. How did you become interested in this type of work?

I have always had a long-standing interest in inequality, history, and politics. These interests may have stemmed from my upbringing. I was born in Malawi, and we left when I was pretty young, but I think it left me with a heightened awareness of poverty and privilege.

My academic career started down a path towards international affairs, but then I took a great social epidemiology class with Dr. Sherman James (one of the leaders in the field). The class was extremely inspiring to me, and it changed the direction of the work I wanted to do.

Why is it so important to look upstream, in **Q.** Why is it so important to look upstream, in particular to social and environmental factors?

Social factors are the driving forces behind health inequities. Issues of social justice, poverty, and racial injustice are long-standing in the US. Similarly, the persistence of health disparities is also long-standing. We, as a society, still have so much work to do to address these issues, and it will take a lot of people working on them from all angles. However, it is important to look at health in context because it's not only about individual level factors. Keeping the bigger picture in mind while working on upstream factors gives us the opportunity to have a wider-reaching impact if we consider that many different types of policies impact health.

As for environmental factors, simple things like the air we breathe and the water we drink affect everyone. It's a basic human right to have access to clean air and water, but the inequalities in access to a clean environment are real, especially when we think globally. I have just begun doing research in the area of environmental justice. It's such an important area and one that complements my other research interests.

Social determinants play a significant role as both Q cause and solution to our hardest health issues. How do we evaluate or measure the impact of this type of work?

Ultimately, social determinants of health will be responsible for the declines we see in long-standing inequities, but only by improving the health of disadvantaged populations. Measuring the impact of social determinant work is tricky because there are so many factors and moving parts that are interconnected. Because of this interconnectivity, one way to measure success is through improved education outcomes in historically disadvantaged groups, more job opportunities for the chronically under- or unemployed,

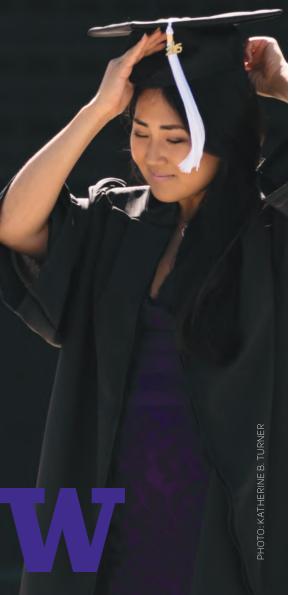
What advice would you give students and those just Q. beginning their careers? How would you encourage them to integrate a social determinants framework into their work?

I have noticed that today's students are very tuned in to many of these social issues. They are creative, resourceful, and mindful about incorporating these issues into their work and into other parts of their lives. They probably don't need my advice, and I could likely learn a lot from them!

For those of us who would like to think more about social determinants, it can be easy to get stuck in the intricacies of our research or practice work and to forget the big picture. I encourage people to always consider their work within the context of a larger framework because there is a social element to most public health problems. \blacklozenge

UW School of Public Health: MAKING ADIFFERENCE

Creating healthier communities is the aim of the research, teaching, and service at the University of Washington School of Public Health. Here is a sampling of the School's local, national, and global impact. For a comprehensive list of stories, visit: sph.washington.edu





'FARM-TO-FORK' REPORT AUTHORED FOR PRESIDENT'S COUNCIL

Jamie Bachaus (MPH 2015, Nutritional Sciences) and Assistant Professor Jennifer Otten of the Department of Health Services co-authored a report on the journey our food takes from "farm to fork" for the President's Council on Fitness, Sports & Nutrition.

The study looks at how the food system affects nutrition and health and lists things that can be done to support a healthier system.

"The notion that producing more food will make fewer people foodinsecure is false," Bachaus said in a UW Health Sciences' *NewsBeat* article. "We produce way more food than we need in America. The affordability of healthy food, and how much food we waste that could be feeding hungry people—those are the real issues."



MAPPING WEALTH AND DIET QUALITY

Adam Drewnowski, Professor in the Department of Epidemiology, Andrea Cook, Affiliate Associate Professor in the Department of Biostatistics, and their colleagues have shown that socioeconomic status measured through wealth better predicts diet quality.

By linking residential property values (an objective measure of wealth) with dietary data from the Seattle Obesity Study, they have been able to simulate the geographic distribution of diet quality across Seattle-King County down to the census-block level.

"Using maps of property values that are freely and publicly available may be useful for identifying populations in need of more help," said Cook.

Their study, which was published in *Preventive Medicine*, found that healthy eating was more closely tied to education and property values, compared to income. The findings show that property values may capture wealth disparities better than measures of education and income.

Coauthors of the study include Anju Aggarwal, Orion Stewart, and Anne Vernez Moudon.



TRAUMA CENTERS LINKED TO IMPROVING MATERNAL AND NEONATAL OUTCOMES

Pregnant women suffering traumatic injuries experience better maternal and neonatal outcomes if they are treated at a Washington hospital with a designated trauma center, according to a study led by John Distelhorst (MPH 2015, Epidemiology).

Traumatic injury of expectant mothers complicates 8 percent of pregnancies. Although a trauma system has been in place for years, there was no prior study of the effect of specialized trauma care on pregnant women who sustain an injury.

The study findings, published in the Journal of American College of Surgeons, show that women treated at a trauma hospital were 40 percent less likely to experience preterm labor. Specialized trauma treatment also lowered the odds of low birth weight and fetal distress.

"This study shows beneficial effects that trauma hospitals can have on injured pregnant women and their neonates," said Distelhorst. "We hope that state trauma systems will look at this information to optimize their resources and triage protocols."

The senior author was Professor Melissa Schiff of the Departments of Epidemiology and Obstetrics and Gynecology.

CREATING SAFER, HEALTHIER PUBLIC SPACES

Students in a Health Impact Assessment (HIA) course teamed up with the Seattle Department of Transportation and the city's Department of Planning and Development to conduct a health impact assessment of the Delridge Multimodal Corridor Project in West Seattle.

The project aimed to transform the area crossed by busy roads into safer and healthier public spaces.

Offered spring quarter, the course was taught by Affiliate Professor Andrew Dannenberg and Associate Professor Edmund Seto of the Department of Environmental and Occupational Health Sciences, and Research Professor Emeritus Fritz Wagner of the Department of Urban Design and Planning.

Students learned the principles behind an HIA and how to conduct one. Most students were from the School of Public Health, College of Built Environments, and Evans School of Public Policy.





TUTORING SUPPORT FOR UNDERREPRESENTED YOUTH

Each week, Julie Beschta, a staff member of the Department of Global Health, jumps on the train after work to go to the Boys and Girls Club at Rainier Vista to provide after-school tutoring support for elementary and middle school students who live in nearby low- and mixed-income housing communities in South Seattle.

"I love spending time with the kids," said Beschta. "Most come from immigrant and refugee families so it's a nice way to support the kids' education and their families, many of whom are new to the US. They are also my neighbors, so it is fun to get to know them better!"

The Youth Tutoring Program, run by Catholic Community Services, relies on volunteers throughout the school year and summer. Students and tutors work one-on-one or in small groups to address learning gaps, develop core academic skills, and improve reading comprehension.

Ninety-nine percent of the participants are students of color and English is either not spoken at home or is the second language for 87 percent of the students.

a #SMAHRT approach to adolescent health

University of Washington School of Public Health students and alumni are working on innovative projects involving social media and adolescent health.

by Laura J. Haas

"I grew up with social media being a part of my daily life, and I've always been interested in learning whether it promotes good behavior or perpetuates bad behavior," said Adrienne Ton (BS 2014, Public Health Major).

For many, adolescence brings back fond memories of friends, school, and new experiences. However, for others, this transition period between childhood and adulthood can be marred by substance abuse, accidents, violence, and suicide—the leading causes of illness and death for this age range. In today's digital age, these positive and negative experiences play out both offline and online.

Luckily, these negative health outcomes are largely preventable with the right intervention. The multidisciplinary Social Media Adolescent Health Research Team (SMAHRT) at Seattle Children's aims to create and interpret messages within social media to promote healthier behaviors in adolescents.

Two members of SMAHRT—Ton and Esther Lam (undergraduate, Public Health)—are working on individual projects that examine content and image displays on Instagram, the popular social media app that allows users to upload, edit, caption, and share photos.

Ton investigated non-suicidal self-injury (NSSI) displays on Instagram to better understand the condition and identify opportunities for interventions. She found that some Instagram users had adapted covert hashtags such as "#selfharmmm" to share NSSI-related content and circumvent Instagram's protocols for blocking inappropriate content.

Ton's work, which she presented at the Pediatric Academic Societies Annual Meeting, found that Instagram represented a way to identify and understand a hidden community of adolescents engaged in NSSI tendencies.

"We found that these posts were mostly published by anonymous users with little demographic content, and that they rarely mentioned recovery," said Ton. "Other studies have estimated a NSSI prevalence of 15 percent in adolescents and 17–35 percent in college students, but the condition is often unreported."

While NSSI in adolescents is often associated with psychological issues such as suicidal thoughts and depression, the anonymity of Instagram users adds a layer of complexity that makes it difficult to address the underlying causes associated with NSSI tendencies.

"We're finding that some adolescents are using this medium as a way to express and sometimes promote NSSI behaviors along with other serious comorbidities like depression and eating disorders. Because Instagram allows for anonymity, it's tough to identify these people, why they are posting this content, and if they are receiving help and support," said Ton. The ability for users to post anonymously is also a trend Lam is exploring in her independent project. Lam is examining public displays of pro-eating disorder posts and eating disorder recovery posts based upon the usage of specific hashtags. In her initial pilot evaluations, she found that demographic data about users who posted eating disorder-related content was largely unavailable.

"Demographics data can help us understand the attitudes and motivations behind eating disorder related posts. When limited, this can pose a barrier to pinpointing specific target populations for potential social media interventions," said Lam.

Still in the early stages of her work, Lam plans to evaluate how the image and text can trigger or encourage certain images and words. "I'm interested in learning how images on Instagram can be a visual trigger for encouraging recovery, or perpetuating eating disorders," said Lam. "As we see healthy or unhealthy habits solidify through user content displays, social media can potentially be a very powerful tool for forming prevention messaging."

Both Lam and Ton are applying what they've learned from the University of Washington (UW) School of Public Health (SPH) undergraduate program to their projects with SMAHRT.

Lam credits her coursework for providing her with a critical framework for how



ESTHER LAM, MEGAN MORENO, ADRIENNE TON

she views health. "The public health field has allowed me to look beyond clinical and individual level care," said Lam. "I've really become interested in how we can improve the health of communities as a whole."

Ton believes that social media presents an opportunity to reach populations that need support but wouldn't normally be identified. "In our public health courses, we often talked about meeting people where they're at, and adolescents are on social media," said Ton. "We need to work with social media platforms to create safe user experiences, identify users who need help, and find ways to direct them to effective support."

Their work is guided by Megan Moreno, Associate Professor at the UW Center for Child Health Behavior and Development, Principal Investigator of SMAHRT, and an alumna of the UW SPH.

"We love having public health students in our lab because they bring a holistic approach to health when working on individual and team projects," said Moreno (MPH 2008). "They can take a complex problem, like selfinjury or eating disorders, and look at the upstream environmental, societal, and cultural factors at play."

REDUCING FIREARM-RELATED SUICIDES IN WASHINGTON STATE

"My son retrieved a gun that was unlocked because it had not been fired in many years and didn't think there was any ammunition in the house. Although we have learned that he was showing some warning signs, I will never know what he was thinking, because that gun left him with no chance of survival."

> — Kathleen Gilligan, whose son died from suicide by firearm in 2012, quoted in the Washington State Suicide Prevention Plan

Every day, approximately 105 Americans die by suicide. In Washington State, suicide is the eighth leading cause of death. People living in rural areas, in higher poverty, and with lower educational attainment, males 45 years and older, American Indian/Alaska Natives, and armed forces members are affected at higher rates than the rest of the population. In 2014, firearms were used in nearly half of the state's completed suicides.

To address this issue, the Washington State Department of Health was assigned by the Legislature to write a statewide plan for suicide prevention across the lifespan. They created a taskforce of key stakeholders, including public health and mental health experts, veterans, and youth advocates, and held statewide listening sessions and public meetings with survivors, experts, and Washington residents. One key theme from the discussions, which was incorporated into the statewide plan, was a need to restrict access to lethal means.

According to the Washington State Suicide Prevention Plan: "Research shows that the time between deciding on suicide and an attempt is often less than an hour, sometimes as short as ten minutes. If a lethal method is not immediately available, the crisis will often pass, and the person is likely never to attempt suicide again.

A suicide attempt using a gun leads to death in 85 to 90 percent of the time; most people who attempt suicide once and survive never attempt again. Putting time, distance, and other barriers between a person at risk and the most lethal means can make the difference between life and death."

Reducing firearm-related suicide deaths requires crosssector collaboration and multi-faceted approaches. The taskforce, along with many groups are taking action to address access to lethal means:

Extreme Risk Protection Orders

The Alliance for Gun Responsibility is running the campaign for Initiative No. 1491, which will create Extreme Risk Protection Orders and allow for the removal of firearms from an individual due to a dangerous mental illness or high risk of violent behavior.

Free Lock Boxes and Trigger Locks

Seattle Children's provides free lock boxes and trigger locks at events across the state.

Gun Responsibility and Injury Prevention Research Fund

A new fund has been established by a generous donor to support UW School of Public Health faculty research on the effectiveness of interventions designed to provide safe firearms storage.

Hot Topics In Practice Webinar

The Northwest Center for Public Health Practice hosted a webinar training on "Putting the Public Health's Approach to Firearm Safety into Action."

LOK-IT-UP Program

King County has developed a program to promote safe storage of firearms.

New Law for Suicide Prevention Training and Messaging

This legislation, drafted in consultation with the National Rifle Association and the Second Amendment Foundation, establishes a taskforce led by Forefront: Innovations in Suicide Prevention to develop suicide prevention messages and training for gun store owners and pharmacists.

Youth Firearm-Related Suicide Prevention Program

Harborview Injury Prevention & Research Center has launched a digital campaign, #EndSuicideWA, which uses social media and an online resource center to promote the message that all suicide is preventable.

WIN A \$50 GIFT CARD

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